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TRANSACTIONS

OF THE

MEDICAL ASSOCIATION

OF

GEORGIA.

THIRTY-THIRD ANNUAL SESSION,

1882.

AUGUSTA, GA.:
PUBLISHED BY THE ASSOCIATION.
1883.

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Special Notice.

The following Resolution, adopted at the Twenty-fourth Annual Session was ordered to be published annually in the Transactions :

Resolved, That the Association shall not be considered as indorsing the views of the authors of papers published in connection with the Transactions, unless definitely so indorsed in the proceedings of the Association.

PRINTED AT
CHRONICLE AND CONSTITUTIONALIST OFFICE,
AUGUSTA, GA.

CONTENTS.

PAGE.

Officers 5
Annual and Special Committees 6
Sections 7
Notice—Prize Essays 8
Secretary's Report. By A. SIBLEY CAMPBELL, M. D. 9
Minutes of the Thirty-third Annual Session 23
President's Address. By WILLIAM F. HOLT, M. D. 48
Annual Oration. By J. P. STEVENS, M. D. 58
Report of the Section on Practice for the Second Congressional District. By T. S. DEKLE, M. D. 79
Report of the Section on Surgery for the Second Congressional District. By P. L. HILSMAN, M. D. (With two Illustrations.) ... 86
Fistula in Ano, with Report of Three Cases. By L. M. JONES, M. D. ... 95
The Relative Merits of Humanized and Bovine Vaccine Virus. By EUGENE FOSTER, M. D. 101
Hemorrhagic Malarial Fever. By R. M. BROWN, M. D. 146
Sympathetic Inflammation—Its Mode of Transmission and Its Nature. By J. M. HULL, M. D. 149
Syphilitic Ulceration of the Eye-Lid (Conjunctiva) in the Infant. By A. W. CALHOUN, M. D. 156
A Contribution to the Local Use of Ergot in Chronic Affections of the Ear, Throat and Lungs—With Experiments and Report of Cases. By H. F. SCOTT, M. D. (With one Illustration.) 159
Is Typhoid Fever Contagious? By W. H. PHILPOT, M. D. 164
Notes from the Fourth Congressional District. By THOS. S. MITCHELL, M. D. 168
Report of a Case of Complete Atresia of Cervix Uteri, with Retention of Menses, Produced by Nitric Acid—Relieved by Aspiration and Bilateral Division of the Cervix. By EVERARD H. RICHARDSON, M. D. 172
Report on Gynecology. By CHAS. P. GORDON, M. D. 177
Malarial Poisoning, the Cause of Hæmaturia. By W. O'Daniel, M. D. ... 180

PAGE.

NECROLOGY 194
Dr. James B. Underwood. By ROBERT BATTEY, M. D. 194
Dr. Ezekiel L. Crump. By A. W. CARSWELL, M. D. 196
Dr. Isaac N. Van Meter. By W. H. FELTON, M. D. 198
Dr. Thomas W. Grimes. ATLANTA MEDICAL REGISTER 200
Dr. W. L. Williams 201
Dr. Joseph S. Simmons 201
Dr. A. Byron Copeland 203
Constitution and By-Laws 205
Roll of Members 214
In Memoriam 222

☞ THE MEDICAL ASSOCIATION OF GEORGIA *will convene in the city of Athens, at its next—the Thirty-fourth—Annual Session, on the third Wednesday in April* (18*th*), 1883.

OFFICERS.

(*For the Thirty-fourth Annual Session, April,* 1883.)

PRESIDENT:

K. P. MOORE, *Forsyth.*

VICE-PRESIDENTS:

A. G. WHITEHEAD, *Waynesboro.*
F. R. CALHOUN, *Euharlee.*

SECRETARY:

A. SIBLEY CAMPBELL, *Augusta.*

TREASURER:

E. C. GOODRICH, *Augusta.*

ORATOR:

HENRY H. BATTEY, *Rome.*

BOARD OF CENSORS:

MEMBERS.	ELECTED.
G. W. HOLMES, *Rome,*	(1878).
W. B. WELLS, *Red Clay,*	(1879).
E. L. CONNALLY, *Atlanta,*	(1880).
R. J. NUNN, *Savannah,*	(1881).
A. W. CALHOUN, *Atlanta,*	(1882).

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E. C. Goodrich, DeSaussure Ford,
K. P. Moore, James B. Baird.

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John Gerdine.

COMMITTEE ON NECROLOGY:

Eugene Foster, Robert Battey,
W. A. Love, T. S. Hopkins.

COMMITTEE ON PRIZE ESSAYS:

Eugene Foster, W. A. Love,
Robert Battey, H. F. Campbell,
R. J. Nunn.

SPECIAL COMMITTEES.

COMMITTEE ON INEBRIATE ASYLUM:

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J. B. Baird; W. A. Love,
W. O'Daniel.

COMMITTEE ON EXPERT TESTIMONY:

J. T. Johnson, J. S. Todd,
J. B. Baird.

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GYNECOLOGY—R. J. Nunn, J. G. Thomas, D. E. Gay.

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GYNECOLOGY—T. S. Hopkins, W. W. Twitty, W. N. Bruce.

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SURGERY—J. C. Bivings, H. H. Battey, T. M. Shaw.
GYNECOLOGY—C. P. Gordon, E. H. Richardson, Jr., R. J. Battle.

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PRACTICE—E. H. W. Hunter, E. C. Goodrich, S. D. Brantly.
SURGERY—DeS. Ford, G. C. Dugas, A. S. Campbell.
GYNECOLOGY—J. A. Eve, H. F. Campbell, M. G. Hatch.

NINTH DISTRICT.

PRACTICE—W. T. Hollingsworth, I. H. Goss, J. M. Carlton.
SURGERY—A. A. Bell, G. F. Wirsen, J. E. Pope.
GYNECOLOGY—G. L. McCleskey, J. W. Bailey, L. G. Hardman.

PRIZE ESSAYS FOR 1882-'83.

At the last meeting of the Medical Association of Georgia the Committee on Prize Essays was authorized to award a prize of fifty dollars to the best Essay on any subject connected with Practice of Medicine, Surgery, Obstetrics or Hygiene—provided one be found worthy of a prize.

Each essay must be accompanied by a sealed packet on which shall be written some motto or sentence, and within which shall be inclosed the author's name and residence. The same motto or sentence is to be written on the essay to which the packet is attached.

Any clew by which the authorship of an essay is made known to the committee, will debar such essay from competition.

Competition for this prize is open to all regular physicians practicing in Georgia.

All essays must be sent to Dr. Eugene Foster, Chairman Committee on Prize Essays, 419 Broad street, Augusta, Georgia. All essays must be sent on or before March 10th, 1883.

In behalf of Committee on Prize Essays,

EUGENE FOSTER, M. D.,
Chairman.

SECRETARY'S REPORT.

To the Medical Association of Georgia:

GENTLEMEN: As Secretary of the Association and *ex-officio* Chairman of the Committee on Publication, I beg leave to present the following report in regard to the volume of Transactions for the year 1881, as well as other matters appertaining to my office. Having been unable to attend the meeting in Atlanta, or to compile this report in time for presentation there, on account of the sickness and death of a near relative, I deem it best, at the time of writing, to continue the statement down to the balancing of accounts for last year's expenses. I proceed, therefore, to give a general statement of the affairs of the Association that have come under my observation since I entered upon the duties of my office.

Shortly after my election as Secretary, I received a communication from the Treasurer, Dr. K. P. Moore, informing me that there was but a small amount of money in the treasury as compared to the requirements for publication; that he had given notice to every member not in attendance at Thomasville in regard to dues, but only a few had responded, and that so few having been present at the Thomasville meeting, the result in the way of collections had been very small; also, inquiring whether I could obtain any advertisements. This was very discouraging to one who had just entered upon the duties of an office upon whom the onus would chiefly fall of properly bring-

ing out, or of failing to issue at all—as appearances then seemed to indicate—a considerable volume of Transactions, the chief requirement, the necessary amount of money in the treasury, being totally inadequate for the purpose; the cause of this lamentable state of affairs being the failure of a large number of members to pay their dues, either from a lack of sufficient interest, or else a simple neglect to send the amount.

While greatly troubled at the prospect before me, I saw that something must be done, nevertheless, to increase the interest of the members—in the Transactions, in the meetings, and, consequently, in the payment of the annual assessment, the latter being one of the main points upon which the welfare, the very existence of the body, may depend; for without a sufficient amount of interest to impel its members to pay the small amount required to meet its ordinary expenses, such an organization can scarcely hope to continue in a very prosperous condition.

Hence, at this juncture, the following measures naturally suggested themselves as calculated to enhance the interests of the Association: First, the publication of a still more attractive volume of Transactions than heretofore, if the necessary amount could possibly be raised. Secondly, by increasing the annual dues for all members to at least three dollars, as has since been adopted by the Association—not going into effect, however, until next meeting. And, thirdly, by calling the attention of the profession throughout the State to the fact of the existence and work of the Association by means of appropriate circular invitations as well as notices in the press of the State, both of the Transactions and of the meetings, so that

of the large number of physicians in Georgia who are not members, a larger number than usual might be induced to attend the meetings and unite annually with the organization.

I reasoned that those members who were tardy in paying their dues might be induced, or at least more forcibly reminded, to do so promptly by the expectation of receiving a valuable and handsomely bound volume of Transactions, even if the assessment was slightly increased; while those who have heretofore shown their decided interest in, and friendship for the Association by promptly meeting their obligations, would scarcely hesitate to pay as promptly were the slight increase made.

In order to carry out the first proposition in regard to an improved and more permanent form for the volume, the only way open to me seemed to be to use extraordinary exertions in the endeavor to obtain an unusually large number of advertisements, the proceeds of which would aid in paying the expenses of publication and other printing. For I saw that I could expect little help from the treasury—the natural source of supply, for as late in the fiscal year as the latter part of August, 1881, the Treasurer, Dr. K. P. Moore, wrote me: "I have now in the treasury $149.20, and no hope of getting more. I have written and written, and the members have ceased to respond." This was certainly a small amount in comparison with the requirements of the case, as it did not equal one-half the cost of the volume for the previous meeting—to say nothing of the expenses which the Secretary would have to meet for postage, circulars, postal cards and other incidentals.

I therefore set to work to determine what amount could be raised from advertising pages. This work alone required a large expenditure of time and labor, as advertisers are not very much inclined to take advertisements in an annual publication of so limited a circulation. Some fifty or sixty manuscript letters were written by me, soliciting advertisements, and tiring of this, a circular was printed, and a large number sent out. From this source the sum of two hundred and nine dollars ($209.00) was ultimately obtained, that is, collected after the volume was issued, as the advertisements were taken to be paid for on publication, and after the receipt of a copy of the volume by each advertiser.

This was a handsome sum to obtain from this source; but it was only obtained at the expenditure of great labor and so much time taken from my private interests and personal affairs—to say nothing of the responsibility involved in calculating upon the amount to be received from advertisements long in advance of its payment, that it will be impossible for me to undertake this work again should there be a lack of funds in publishing the present volume. It was certainly an ungrateful task, to be compelled to eke out in this way the inadequate funds of the Association—which ought to be a wealthy organization. The ordinary duties of the office—in collating the material that goes to make up the volume, with all the multiform vexations and perplexities that relate to seeing it safely issued from the press, together with the large correspondence that devolves upon the same individual—constitute, of themselves an arduous task, even if a full treasury were at his disposal to meet the requirements of the office.

Again, in order to gather up all the crumbs in the shape of dues of members in arrears for assessments for the two or three years preceding, late in the year and before printing the roll, after the Treasurer, who was then absent from the State, had given up all hope of obtaining anything more from this source, I issued a circular letter to all such members, earnestly appealing to them to pay their back debts, and thus collected forty-one dollars more,—this being exclusive of current dues for the years 1881 and 1882, which for convenience were paid to me from time to time by various members to the amount of fourteen dollars, making in all a total of fifty-five dollars thus collected by me towards paying expenses.

During the progress of the work of publication it became necessary to supplement the funds received from the Treasurer by making a loan, in order to aid in making certain payments due in advance of issuing the book. Among these were the bill for covers, which were ordered C. O. D., and payments made on printing account, as it was agreed to advance a sufficient amount to aid the printer to pay for the new type and paper for the book, both of which were ordered expressly for this work,—the proceeds for advertising pages not being received, as stated, until after the volume was issued. Another smaller loan was afterwards made to pay for the circulars sent out before the meeting, the two amounting to $128.60, all of which has since been paid. I wrote to the President, Dr. J. C. LeHardy, in August, 1881, acquainting him with the state of affairs and my great perplexity in regard to the finances. He directed me to

go on with the work of publication, as should the funds in hand prove ultimately insufficient to pay our indebtedness, the balance would be paid out of the funds received at the next meeting.

I was also compelled to advance money from time to time to pay for the material necessary to carry on the ordinary work of my office, such as postage, postals, printing, stationery, notices, etc.,—some of these items though generally trivial in the case of private correspondence, may amount to a serious inconvenience where a single member has to pay for them, through a long period, to meet the demands of the large correspondence which devolves upon the office.

My excuse for being thus particular in making the foregoing statement, is to give the members of the Association a faint idea at least of some of the difficulties which surrounded me in my effort to issue the volume of Transactions for 1881. A plain statement of the facts may aid them to devise further measures by which the Association may be placed upon a self-sustaining basis, and not dependent to such a large extent—as my experience has been in the past year—upon the time, labor and resources of the member—an unsalaried officer—who may in the future occupy the Secretary's office.

Four hundred copies of the Transactions for the year 1881, of three hundred and eighteen pages each, besides twenty-six pages of advertisements on colored paper, including also printed wrappers, together with the cost of delivery, were published at a total cost of four hundred and eighty-eight dollars and eighty cents ($488.80). From this sum the amount obtained by the Secretary for

advertisements—two hundred and nine dollars ($209.00)—being deducted, leaves two hundred and seventy-nine dollars and eighty cents ($279.80) as the net cost to the Association; or, without the cost of delivery, the actual net cost for printing and binding the edition was thus reduced by the proceeds of the advertising pages to the small expense to the Association of two hundred and thirty-nine dollars ($239.00). The total sum first mentioned ($488.80) was sub-divided as follows: For printing and binding and putting on the covers, three hundred and forty-eight dollars and ten cents ($348.10); for covers, including two brass dies for back and side stamp and express charges, ninety-four dollars and thirty cents ($94.30); electrotypes of seal for title page, five dollars and sixty cents ($5.60)—hence, gross total for printing and binding, four hundred and forty-eight dollars ($448.00);—postage stamps for distributing the Transactions, thirty-four dollars and eighty cents ($34.80); expressage on packages of Transactions to members residing in cities and towns, six dollars, ($6.00)—making forty dollars and eighty cents ($40.80) as the cost of sending out the volume after publication. It will thus be seen that the gross cost per volume, including the cost of delivery, was one dollar and twenty-two and one-fifth cents ($1.22 1-5); while, without cost of delivery, the actual net cost to the Association was reduced—by proceeds from advertising pages—to fifty-nine and three-quarter cents (0.59¾) per volume. As the volume weighed about two pounds, the postage on each one sent out by mail was sixteen cents; wherever this expense could be reduced by sending a number of copies to members residing at the same place in one pack-

age by express, this plan was adopted, and a proper notice sent by postal card to each member informing him to what address his copy had been sent. It will be seen that the cost of delivery adds considerably to the cost of the volume, *i. e.*, in comparison with the meagre state of our finances. This aggregate expense might be saved the Association and the divided expense fall very lightly upon the individual members, if we adopted the plan of the American Medical Association whose Transactions are sent out by express, each member paying for the expressage on his copy; but if all members would promptly pay their just dues, there would be no necessity for this or other devices to save or to raise money. The net cost of the covers—consisting of boards, in dark green cloth, with gilt title, stamp, and gilt and black bands, on back; and gilt and black seal, and gilt title, between black lines, on side—was sixteen cents each; the two brass dies cost sixteen dollars and seventy-five cents ($16.75), and these, together with express charges, made up the total cost mentioned for covers. The covers were devised and ordered by me independently of the contract with the printer, who simply put them on the printed volume, his contract including this work.

In consideration of the large amount which I had been enabled to raise from advertisements without any draft upon the treasury, it seemed well to carry out the first proposition mentioned in the beginning of this report, and arrange to issue the volume in the handsome cover which has added greatly to the durability, general appearance and make-up of the book—making it superior in this respect to any publication of the kind in the

United States—it having been generally admired as a specimen of typography and book-making, and favorably reviewed by the medical journals and other publications to which it has been sent.

In regard to the illustrations, which also added greatly to the interest and value of the volume, I would state that they were all paid for by other parties without expense to the Association,—the wood-cuts and photo-engravings accompanying the scientific articles being paid for by the authors of the several papers, and the portraits of deceased members furnished at my request by the friends of the subjects of the memorial sketches. I might state also, in passing, that I endeavored to obtain portraits of other deceased members for insertion in the volume—so far as my information served me as to whom I should approach on the subject—but without further success.

For facility of reference I insert the following recapitulation and tabular statement of the receipts and expenditures in relation to publication and the expenses of the Secretary's office, from the time of my election, to the balancing of accounts preparatory to publishing the volume for 1882:

RECAPITULATION.

RECEIPTS.

Total amount received from Dr. K. P. Moore, Treasurer—by checks and post office order	$162 00
Amount received by Secretary for advertising pages in the Transactions for 1881	209 00
Dues collected by Secretary from members in arrears for 1879, 1880, 1881—in response to circular	41 00
Dues for 1881 paid to Secretary by members	10 00

Dues for 1882 paid to Secretary by members	$4 00
Received from sale of two copies of Transactions, 1881	3 15
Cash from Dr. E. C. Goodrich, Treasurer, to balance account of 1881	129 62
	$558 77

EXPENDITURES.

For printing 400 copies of the Transactions for the year 1881	$348 10			
For 400 covers for Transactions, including back and side stamp and express charges	94 30			
Electrotypes of seal for title-page	5 60			
Total cost for printing and binding		$448 00		
Postage stamps for distributing Transactions	34 80			
Expressage on packages of Transactions to cities and towns	6 00			
Cost of delivery		40 80		
Total cost, with cost of delivery added			$488 80	
Postage stamps and postal cards			31 02	
Printing—circulars, notices, postals, letter heads, envelopes, etc.			29 00	
Other expenses—including expressage, freight, telegrams, etc., as per Secretary's itemized account			8 95	
			$557 77	
Cash turned over to Dr. E. C. Goodrich, Treas'r			1 00	
			$558 77	

For the various items making up this consolidated statement, see Secretary's book and vouchers.

A copy of the Transactions was sent to every member of the Association; thirty-seven copies were, according to custom, sent in exchange to the various State Medical Associations; thirty-two copies were sent for review to medical journals, and scientific and literary publications throughout the United States; eighteen copies to Boards of Health, local libraries, learned institutions and different

medical organizations; nine copies to some of the principal newspapers of the State; two copies were sold to applicants; a copy was sent to each advertiser; a few copies to prominent officials of the State; and several copies to the families and friends of deceased members whose memorial sketches appear in the volume; leaving a sufficient reserve for future calls. The prominent and favorable notices kindly given the book by the editors of the newspapers to which it was sent, have no doubt had their effect, together with the other measures employed, in calling the attention of the profession to the work of the Association and increasing the interest in the organization. Our acknowledgments are particularly due also to the medical press of this and other States for the complimentary notices and favorable reviews of the volume contained in the journals to which it was sent, which falling directly into the hands of the profession generally throughout the State have thus pointedly drawn their attention to the benefits of membership.

It had been hoped from the general interest and value of the volume, as well as from its handsome appearance and permanent form, that a larger number of copies would have been sold, so that the result might have been applied to aid in paying the cost of publication.

Every effort has been made by me to perfect the roll as far as possible—both the list of the living and that of the deceased members of the Association. This work itself required a considerable correspondence as well as a close examination of former records, as contained in previous volumes of Transactions to supply missing dates, etc., where these could not otherwise be determined. In this

way and after corresponding with members, post-masters and others, I was finally enabled to fill up some fifty or sixty blanks and omissions in the two rolls. The roll of living members, therefore, in the last volume contained no blank dates and was as correct in regard to post offices, etc., as the information obtainable from all sources—including gazeteers and directories—would permit. I found that several members had changed their post offices without sending the proper notification, which failure is calculated to produce great uncertainty and confusion in distributing the Transactions, and in sending out the usual notices by the Secretary and the Treasurer. Notwithstanding the labor which has been expended in this direction, a large number of blank spaces for dates and a few for place of residence still remain unfilled in the "In Memoriam" roll, which the diligent inquiries of future Secretaries, aided by the members, may be able further to supply, and thus add to the value and interest of the list as a memorial roll, which in its present state still has a very incomplete appearance.

In regard to the very full report on Necrology, together with the biographical sketches of recently deceased members which appeared in the volnme for 1881, I would state that every effort was made by me to render the number of memorials as complete as possible, by applying to the professional and other friends, and to the families of the deceased members for sketches of all those who, as I found by the records or by close inquiry, and correspondence, had died within the last few years—in addition to a few memoirs the data for which the chairman of the committee had been enabled to obtain in time for the

meeting. With the great improvement in this respect, there were still some of the recently deceased members of whom memorials could not be obtained at the time, which future volumes may supply.

The following Transactions of State Medical Associations have been received: Florida, Illinois, Iowa, Nebraska, and Rhode Island, for 1880; Alabama, Arkansas, Connecticut, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, New York, North Carolina, Oregon, Pennsylvania, Rhode Island, South Carolina, and Wisconsin, for 1881. Also, the Transactions of the College of Physicians of Philadelphia and Annual Reports of the State Boards of Health of Connecticut, Michigan and Wisconsin.

Preparatory to the meeting in Atlanta, in attempting to carry out the third proposition mentioned in the beginning of this report, so far, at least, as the limited means at hand and circumstances at the time permitted, a number of tastefully printed circular notices were ordered and sent out to the members and about one hundred more to prominent physicians and local medical organizations in the State, and also to the newspapers in the cities and principal towns. I also wrote to a number of influential members in different parts of the State, furnishing them with a general form of notice of the meeting, which, by the kindly offices of these members and of the editors of the various newspapers in those localities, were inserted as local items. Had we the means to do so, as we certainly ought to have, in order to increase our membership beyond the very small percentage of the physicians of the

State which the organization now contains, it would be desirable to issue every year by mail a notice of our meetings to every regular physician in the State, as well as to advertise the meetings and invite membership more fully by an official notice in all the principal newspapers of the State. Such a plan is employed to increase their membership by some of the other State Medical Associations. I had arranged, nevertheless, to send out a much larger number of the circulars mentioned above, but the completion of this work was prevented, as well as my attendance at the meeting, by the great affliction which befell me at that time.

Respectfully submitted.

A. SIBLEY CAMPBELL,

Secretary.

MINUTES

OF THE

MEDICAL ASSOCIATION OF GEORGIA.

THIRTY-THIRD ANNUAL SESSION.

FIRST DAY—MORNING SESSION.

ATLANTA, April 19, 1882.

The Medical Association of Georgia convened this day, at 11 o'clock A. M., in the Senate Chamber, and in the absence of the retiring President, was called to order by Dr. JAMES B. BAIRD, chairman of the Committee of Arrangements.

The Secretary, Dr. A. SIBLEY CAMPBELL, of Augusta, was unable to attend the meeting, on account of the death of a near relative.

Dr. JNO. THAD. JOHNSON was appointed Secretary *pro tem.*

The exercises were opened with prayer by Rev. H. H. TUCKER, D. D., of Atlanta.

Dr. JAMES F. ALEXANDER, of Atlanta, then delivered the address of welcome, in behalf of the Committee of Arrangements.

Dr. EUGENE FOSTER, of Augusta, responded in behalf of the Association.

Dr. BAIRD then introduced the President-elect, Dr. WM. F. HOLT, of Macon, and retired from the chair.

The President proceeded to deliver the annual address. [Appendix.]

On motion of Dr. W. O'DANIEL, a committee of five was appointed to consider and report on the suggestions contained in the President's address. W. O'Daniel, B. R. Dostor, J. P. Logan, Eugene Foster, E. K. Bozeman, committee.

The Committee of Arrangements, through their chairman, Dr. JAMES B. BAIRD, then reported the following order of business, and programme for the entertainment of the Association.

PROGRAMME.

FIRST DAY—WEDNESDAY—MORNING.

Convene in the Senate Chamber at eleven o'clock.

Opening Exercises—Prayer by Rev. H. H. Tucker, D. D. Address of Welcome, by James F. Alexander, M. D., in behalf of the Committee of Arrangements. President's Annual Address. Regular order. Adjournment at one o'clock.

Afternoon—Convene at three o'clock. Regular order. Adjournment at the pleasure of the Association.

Evening.—Receptions—by the Governor, at the Executive Mansion; and by Mr. J. H. Porter, at his residence, on Peachtree street.

SECOND DAY—THURSDAY—MORNING.

Convene at ten o'clock. Regular order. Orator's address at half-past twelve o'clock. Adjournment at one o'clock.

Afternoon.—Convene at three o'clock. Regular order. Adjournment at the pleasure of the Association.

Evening.—Grand Banquet at the Markham House.

THIRD DAY—FRIDAY—MORNING.

Convene at ten o'clock. Regular order. Adjournment at one o'clock.

Afternoon.—Convene at three o'clock. Regular order. Adjournment at four o'clock. Excursion to Sweetwater, over the Georgia Pacific Railroad, at half-past four o'clock. Refreshments.

Adopted.

On motion of Dr. J. W. GRIGGS, representatives of the press and visiting physicians were invited to seats on the floor.

Notes and telegrams were read from various absent members regretting their inability to attend.

The following are the names of the members present, together with the names of the new members who were enrolled from time to time during the three days' session, as derived from the registry list of the Treasurer:

Drs. E. H. Richardson, T. J. Slaughter, W. O'Daniel, D. O. C. Heery, W. A. Culbertson, D. H. Howell, A. R. Taylor, J. B. Roberts, J. C. Olmsted, A. G. Whitehead, T. L. Lallerstedt, R. H. Taylor, J. W. Griggs, Wm. A. Love, G. G. Crawford, J. R. Humphries, T. S. Dekle, Eugene Foster, B. R. Dostor, J. J. Hill, D. T. Nash, M. G. Hatch, E. H. W. Hunter, C. W. Hickman, W. T. Hollingsworth, G. L. McCleskey, E. K. Bozeman, T. S. Powell, S. B. Hawkins, P. L. Hilsman, W. P. Hardin, W. F. Holt, A. W. Calhoun, J. F. Alexander, W. N. Bruce, J. D. Martin, R. J. Nunn, A. J. Logan, B. L. Joiner, A. G. Blincoe, J. M. Hull, F. H. O'Brien, N. P. Jelks, Jas. B. Baird, James A. Gray, Robt. A. Wade, J. M. Carlton, John Gerdine, A. G. Hobbs, R. M. Brown, W. C. Jarnagin, R. J. Milam, R. O. Cotter, W. L. Bullard, John E. Roach, W. D. Bizzell, W. S. Elkin, John A. Callaway, John M. Boring, F. R. Calhoun, J. L. Hamilton, J. W. Janes, J. C. Johnson, T. D. Walker, M. H. O'Daniel, L. M. Jones, A. B. Copeland, Thos. S. Mitchell, W. B. Wells, Chas. P. Gordon, M. P. Deadwyler, John G. Earnest, J. M. Johnson, E. L. Connally, W. F. Westmoreland, J. W. Clements, W. L. Sterling, Paul Faver, H. F. Scott, Wm. Perrin Nicolson, J. P. Logan,

Thos. Rains, G. G. Roy, K. P. Moore, W. G. Owen, W. B. Parks, E. Fitzgerald, E. G. Ferguson, A. A. Bell, W. C. Moore, Robert Battey, J. B. S. Holmes, J. G. Hopkins, W. S. Kendrick, S. Robertson, Thos. H. Kenan, Jno. Thad. Johnson, William Armstrong, C. H. Hall, V. G. Hitt, R. C. Word, H. H. Battey, C. H. Colding, Thos. R. Whitley, E. C. Earle, J. L. Selman, K. C. Devine, C. D. Smith, E. C. Goodrich, T. O. Powell, T. L. Rains, J. P. Stevens, E. W. Roach, H. V. M. Miller, J. T. Moore, J. H. Redding.

Of the above list thirty-five were new members.

In the absence of some of the Censors, the Chair appointed Drs. S. B. Hawkins, E. H. W. Hunter and A. G. Whitehead to act on the Board.

Under the call for reports from special committees, Dr. JAMES B. BAIRD made the report in behalf of the Committee on the Bill to Regulate the Practice of Medicine in the State of Georgia.

Adopted, and, on motion, the committee was discharged.

The Report on Publication was not ready on account of the affliction in the family of the Secretary, but will be presented in time for publication. [See "Secretary's Report" in introductory pages, preceding Minutes.]

The Committee on Necrology and the Committee on Prize Essays were not yet ready, but would report later in the session.

Under the call of sections from the several Congressional Districts, the following reports were presented by title and held for subsequent reading at the call of the Association:

Dr. T. S. DEKLE: "Report of the Section on Practice for the Second Congressional District."

Dr. P. L. HILSMAN: "Report of the Section on Surgery for the Second Congressional District."

Dr. L. M. JONES, from the Section on Surgery for the Sixth District: "Fistula in ano, with the report of three cases."

Also, the following communication from Dr. DESAUSSURE FORD:

REPORT ON SURGERY, EIGHTH CONGRESSIONAL DISTRICT.

A circular was duly forwarded to the members of the Association of the Eighth Congressional District, requesting contributions to make up the report, but none have been received, therefore, your committee's discharge of duty must be meagre.

The institution of committees upon special branches, contemplating reports from every Congressional District of the State, at each annual meeting of our Association, was wise, but, with few exceptions up to this time, these committees have failed to do good duty. This is to be regretted, and while our committee would not judge harshly, would urge upon the Association the duties of appointed committees, confident that free interchange of views will infuse new life and interest in such committees, resulting in great good to humanity, and more instruction to those of the profession who attend our annual meetings.

The effort to gain some knowledge of the progress of surgery in the Eighth District having failed, we respectfully request to be continued, promising that before our next meeting to be even more diligent in endeavor to prepare a report more worthy and beneficial.

Respectfully submitted. DESAUSSURE FORD,
Chairman Com. Surgery, Eighth Congressional District.

AUGUSTA, GA., April 18, 1882.

The following voluntary communications were presented by title to be read at the call of the Association:

Dr. EUGENE FOSTER: "The relative merits of humanized and bovine vaccine virus."

Dr. DESAUSSURE FORD: "Report of surgical cases."

Dr. HENRY F. CAMPBELL: "The therapeutic value of gelseminum."

Dr. THOMAS R. WRIGHT: "A case of fracture of the jaw, and a case of fracture of the skull."

Dr. CHAS. W. HICKMAN: "Catarrhal conjunctivitis."

Dr. R. M. BROWN: "Hemorrhagic malarial fever."

Dr. G. G. ROY: "Suppurative hepatitis, with report of cases."

Dr. J. W. GRIGGS: "Successful treatment of aneurism of the femoral artery by muriated tincture of iron."

Dr. A. G. WHITEHEAD: "Report of two cases of abscess of the liver."

Dr. J. M. HULL: "A case of sympathetic ophthalmia and its mode of transmission."

At the request of Dr. FOSTER, the hour of 11 A. M., on the second day was, on motion, appointed for the reading of his paper.

The Board of Censors reported favorably upon the following applicants for membership:

N. P. Jelks, Hawkinsville; A. J. Logan, Americus; B. L. Joiner, Andersonville; James A. Gray, Atlanta; Robt. A. Wade, Athens; John Gerdine, Athens; J. M. Carlton, Athens; T. D. Walker, Cochran; M. H. O'Daniel, Bullards; W. D. Bizzell, Atlanta; John E. Roach, Douglasville; R. O. Cotter, Atlanta; A. G. Hobbs, Atlanta; A. G. Blincoe, Atlanta; F. H. O'Brien, Atlanta; John A. Calloway, Milledgeville; J. M. Hull, Augusta, W. L. Bullard, Tennille; R. M. Brown, Toombsboro; R. J. Milam, Fairburn; W. S. Elkin, Atlanta.

Adopted.

Dr. R. J. NUNN presented by title: "Report of the section on gynecology for the First Congressional District."

The Association then adjourned until 3 o'clock.

FIRST DAY—AFTERNOON SESSION.

The Association met at 3 o'clock, the President, Dr. HOLT, in the chair.

On motion, the reading of the reports of sections was called.

Dr. A. G. WHITEHEAD stated that he had in process of preparation a report on Practice.

Dr. R. J. NUNN presented his report on gynecology, and exhibited a multiple speculum and other gynecological instruments; also, some hypodermic syringes of superior qualities. He called the attention of country practitioners to orris root as a uterine tent, as a substitute for sponge or sea-tangle.

The following voluntary communications were presented:

Dr. A. G. HOBBS: "A few remarks on Hotz's operation on the eye-lids for entropion and trichiasis, with seven cases."

Dr. A. W. CALHOUN: "Syphilitic ulceration of the eye-lid in the infant."

The following applications for membership were received and referred to the Board of Censors: E. G. Ferguson, E. Fitzgerald, Macon; W. B. Parks, W. C. Jarnagan, John G. Earnest, Atlanta.

Dr. T. S. DEKLE read his report on Practice for the Second District, already presented by title.

Dr. W. O'DANIEL, in behalf of the committee appointed to consider the suggestions contained in the President's address, made the following report:

To the President of the Medical Association of Georgia:

The undersigned committee, appointed to consider the question of increasing the funds of Association and erection of Inebriate Asylum in Georgia, respectfully offer the following report:

1st. In relation to increase of the funds of the Association, we recommend that the annual assessment of every member of the Association be three dollars.

2d. We most heartily endorse the effort to procure an Inebriate Asylum in this State, and recommend the appointment of a committee of this Association to memorialize the Legislature of Georgia on the subject.

We would commend the President for his zeal and ability in his admirable address, and assure him his efforts are duly appreciated.

W. O'DANIEL,
E. K. BOZEMAN,
B. R. DOSTOR,
EUGENE FOSTER.

ATLANTA, GA., April 19, 1882.

The report was laid over for a few moments, while Dr. W. F. WESTMORELAND presented a case—a child twenty months old with curvature of bones of the leg, possibly congenital.

The consideration of Dr. O'DANIEL's report was then resumed.

Dr. NUNN moved that the report be adopted.

Dr. W. F. WESTMORELAND moved that so much of it be adopted as relates to the Inebriate Asylum.

Carried.

The President then stated that the question as to the annual dues was before the house.

On motion, the recommendation to make the dues three dollars was unanimously adopted.

The Chair ruled that the amount of annual dues adopted applied to *all* members.

Dr. J. B. BAIRD, from the special committee on the State Lunatic Asylum, reported in behalf of the committee. The desired appropriation had been made.

The report was adopted and the committee discharged.

Dr. R. J. NUNN offered the following resolution, providing for life-memberships:

Resolved, That the assessment for life-membership shall be THIRTY dollars, exempting from annual dues. The sum so received to be invested and the interest used to pay annual dues of said life-member. That a member may hold as many life-memberships as he desires, and shall be entitled to one vote for each.

Dr. CRAWFORD made a point of order—not sustained.

Dr. O'DANIEL moved that a committee of three be appointed to consider Dr. NUNN's resolution.

Carried.

Committee—Drs. Nunn, O'Daniel and Calhoun.

The Board of Censors reported favorably upon the following applicants for membership: E. G. Ferguson, E. Fitzgerald, Macon; W. C. Jarnigan, W. B. Parks, John G. Earnest, Atlanta.

Adopted.

The Secretary read a note from Dr. COOPER.

The reading of reports was resumed, and Dr. P. L. HILSMAN read his paper already announced.

The following voluntary communication was presented:

Dr. H. F. SCOTT: "A contribution to the use of ergot in chronic affections of the throat, lungs and ear, with experiments and report of cases."

The committee on Dr. NUNN's resolution reported that the resolution does not conflict with the Constitution and By-Laws, and filled up the blanks.

Dr. O'DANIEL moved its adoption.

Adopted, with twenty-six votes in the affirmative—none in opposition.

The Secretary read the papers of Drs. Philpot, Mitchell and Brewster.

The hour of 10 A. M., the next day, was appointed for Dr. POWELL's report on gynecology.

The following voluntary paper was presented by title:

Dr. E. H. RICHARDSON: "A case of atresia of cervix uteri, with retention of menses, produced by nitric acid, relieved by aspiration and bilateral division of cervix."

The report on gynecology for the seventh district was read by Dr. CHARLES P. GORDON.

Dr. DES. FORD's paper was read by Dr. FOSTER.

The following committee was appointed to memorialize the Legislature upon the subject of Inebriate Asylum: Drs. J. P. Logan, J. B. Baird, A. W. Calhoun, W. A. Love, W. O'Daniel.

The following voluntary paper was announced:

Dr. K. P. MOORE: "Alcohol in the treatment of fevers."

Adjourned.

SECOND DAY—MORNING SESSION.

APRIL 20, 1882.

The Association was called to order at 10 A. M., President HOLT in the chair.

Dr. JOHNSON declining to act as Secretary *pro tem.*, Dr. EUGENE FOSTER was requested to fill the vacancy, but declined, in consequence of duties upon several committees.

Dr. J. M. HULL was then requested, by vote of the Association, to fill the vacancy *pro tem.*

Applications of Drs. C. H. COLDING and H. H. BATTEY were read and referred to Board of Censors.

The hour of 10 A. M. having arrived, the President announced that the special order was the reading of a paper by Dr. T. S. POWELL.

Dr. POWELL then read his paper, which will be found in Appendix.

The Board of Censors reported favorably upon the applications of Drs. H. H. BATTEY, Rome; and C. H. COLDING, Hawkinsville, and they were then elected to membership.

Dr. LALLERSTEDT, of Panola, presented a case of injury to scalp, the scalp having been torn by the belting of a cotton gin; skin-grafting had been used with success. Remarks were made upon the case by Drs. LALLERTSEDT and J. T. JOHNSON.

The special order of business for 11 o'clock, being the presentation of a paper by Dr. EUGENE FOSTER, the paper entitled: "The relative merits of humanized and bovine vaccine virus," was read.

Dr. J. T. JOHNSON then moved that 4 o'clock be set apart for the reading of a paper by Dr. ROBERT BATTEY, which was adopted.

Dr. J. B. BAIRD offered the following resolutions, which were adopted:

Resolved, That the Medical Association of Georgia, in convention assembled, reaffirms its devotion to the time-honored code of ethics of the American Medical Association, which has heretofore been its accepted chart, and shall henceforward be its trusted guide.

Resolved, That this body deprecates any and all attempts on the part of medical organizations to break down this honorable barrier between the regular Medical profession and the vast and varied domain of quackery, and do earnestly protest against departures from the true spirit of the supreme law of the organized profession of the Union.

Resolved, That a duly attested copy of these resolutions be presented to the American Medical Association, in open session, at the approaching session.

The annual oration was next delivered by Dr. J. P. STEVENS, of Macon. [Appendix].

The President announced the following as constituting the Nominating Committee:

Drs. Robert Battey, Floyd county; J. G. Hopkins, Thomas county; E. K. Bozeman, Sumpter county; T. L. Lallerstedt, DeKalb county; A. B. Copeland, Harris county; W. T. Hollingsworth, Morgan county; W. B. Wells, Whitfield county; George G. Crawford, Fulton county; W. O'Daniel, Twiggs county; J. T. Slaughter, Carroll county; A. G. Whitehead, Burke county; J. W. Griggs, Troup county; M. G. Hatch, Washington county; Eugene Foster, Richmond county; B. R. Dostor, Early county; R. H. Taylor, Coweta county; G. L. McCleskey, Clarke county; P. L. Hilsman, Dougherty county; C. H. Hall, Bibb county; W. P. Harden, Cobb county; W. N. Bruce, Decatur county; E. H. Richardson, Polk county; J. J. Hill, Wilkes county; D. T. Nash, Clayton county; E. H. W. Hunter, Jefferson county; R. J. Nunn, Chatham county; R. J. Milam, Campbell county; T. H. Kenan, Baldwin county; John E. Roach, Douglass county; F. R.

Calhoun, Bartow county; L. M. Jones, Wilkinson county; M. P. Deadwiler, Elbert county; Paul Faver, Fayette county; A. R. Taylor, Pulaski county; K. P. Moore, Monroe county; W. S. Kendrick, Chattooga county; S. Robertson, Paulding county.

The Board of Censors reported favorably on Drs. T. R. Whitley, E. C. Earle and J. L. Selman, who were then elected to membership.

On motion, the Association then adjourned.

SECOND DAY—AFTERNOON SESSION.

The President called the meeting to order at 3:15 P. M.

Dr. WM. ABRAM LOVE asked permission to present tomorrow at a fitting time a voluntary paper, entitled: "Origin of blood corpuscles and plastic cells, with their influence on some physiological and pathological actions in the organism."

Dr. W. O'DANIEL then presented a voluntary paper: "Malarial poisoning,—the cause of hæmaturia."

Dr. L. M. JONES then presented his report as a member of the section on Surgery from the Sixth Congressional District.

The following paper was presented by title by Dr. W. O'DANIEL, from the section on gynecology from the Sixth District: "Sterility dependent upon an engorged and inflammatory condition of the uterus, together with partial occlusion of the cervix relieved by treatment."

The application for membership of Dr. J. H. REDDING, of Macon, was received and referred to the Board of Censors.

Dr. ROBERT BATTEY then read his paper of personal experiences abroad last summer.

Dr. BATTEY then said that he would, if agreeable to the Association, make a few remarks upon some cases, which he proceeded to do.

The Board of Censors reported favorably upon the application of Dr. J. H. REDDING, of Macon.

Dr. H. F. SCOTT next read a report on the local use of ergot in chronic affections of the ear, throat and lung.

The following paper was presented by Dr. A. A. BELL, of Madison: "A plea for circumcision as a hygienic measure."

Dr. OLMSTEAD then made a few remarks on the paper.

Dr. A. W. CALHOUN then read his paper on "syphilitic ulceration of the eye-lid (conjunctiva) in the infant."

Dr. CALHOUN also explained the use of the dentiphone as used by one of the members present—explained its principle, stated it was beneficial in a small proportion of cases —and these could be ascertained only by test.

Dr. J. M. HULL then read a paper on "a case of sympathetic ophthalmia and its mode of transmission."

Dr. WESTMORELAND then exhibited a cast of the leg in the case presented yesterday, and made a few remarks.

Dr. CALHOUN had seen one similar case, in which the legs were very crooked, but which afterwards straightened.

Dr. C. D. SMITH has also seen such a case as the one mentioned by Dr. CALHOUN.

Dr. J. T. Johnson moved to meet to-morrow, at 9 o'clock.

Carried.

At the request of Dr. W. F. WESTMORELAND, the hour of 10.30 o'clock, to-morrow morning was set apart for hearing the report from the section on surgery for the Fifth Congressional District.

Dr. JOHN THAD. JOHNSON offered the following:

Resolved, That the amendment offered at the last annual meeting, looking to the method of amending the Constitution, be now declared a part of the Constitution.

Adopted.

Adjourned.

THIRD DAY—MORNING SESSION.

APRIL 21, 1882.

The meeting was called to order at 9:30 A. M. President HOLT in the chair.

The minutes of previous sessions were read and conconfirmed.

The applications for membership of Drs. K. C. DIVINE, T. L. RAINS and E. W. ROACH were read, and referred to the Board of Censors.

The following was offered by Dr. W. C. MOORE, of Clarkston:

Resolved, That two more sections be established by this Association—one on "Mental Diseases," and one on "Indigenous Medical Remedies."

The resolution was read, and under the rules laid over until the next meeting.

The President announced that the reading of voluntary papers was then in order.

Dr. T. H. KENAN then delivered a few remarks on

treatment of fractures in aged persons without splints—as a report from Sixth Congressional District, which was discussed by Drs. FOSTER and CRAWFORD.

Dr. R. C. WORD then reported on the use of the old starch apparatus in cases of fracture.

Dr. EUGENE FOSTER then read a paper of Dr. DeS. FORD on a few surgical cases.

Dr. CRAWFORD moved that the Secretary read the titles of voluntary papers.

Dr. W. O'DANIEL, Secretary of the Nominating Committee, then read the following report, which was adopted:

The committee appointed by the Medical Association of Georgia for nominating a President, met in the Hall of the House of Representatives, and organized by making Dr. E. H. W. HUNTER, of Jefferson county, chairman of the Committee, and Dr. W. O'DANIEL, Secretary.

Dr. K. P. MOORE, of Forsyth, Ga., was unanimously nominated President, to serve the ensuing year.

Dr. A. G. WHITEHEAD, of Waynesboro, was nominated First Vice-President, and

Dr. F. R. CALHOUN, Second Vice-President, and

Dr. E. C. GOODRICH, of Augusta, was nominated to fill the unexpired term of Dr. K. P. MOORE, Treasurer.

Dr. A. W. CALHOUN, of Atlanta, was nominated Censor.

All the above nominations subject to confirmation by the Association.

The following Committees for Districts were announced. [The remainder of the report, consisting of the appointees on Sections, will be found on one of the introductory pages.]

Dr. MOORE then resigned his position as Treasurer, and commended Dr. A. S. CAMPBELL for diligent work during last year.

Dr. E. C. GOODRICH was then nominated for Treasurer, and confirmed.

Dr. A. J. ADAMS, of the Sixth Congressional District, then read a voluntary paper.

Dr. K. P. MOORE then read the following report of the Committee on Necrology, which was adopted;—also, a resolution by Dr. W. F. WESTMORELAND, requesting a photograph of Dr. BANKS, to accompany the report on Necrology:

It is the sad duty of the Committee on Necrology to report, that since our last convocation, several of our most valuable members have been called upon to lay down their armor of earthly usefulness, and have been "called from their labors" below, we trust, "to refreshments" in a purer, happier, holier atmosphere above.

Some of them were just entering upon a bright sphere of usefulness. The sun of their lives was just reaching the zenith, and was shedding an effulgence of light and good will upon all who came within its radius. Others had spent long years of toil and self-sacrifice in their high and noble calling, and were ripe and ready to be laid upon the altar, and to enter upon brighter spheres of happiness in fields elysian.

Why our best men and brightest lights should be called away while there is so much of usefulness, alike to their families, their clients and their brethren, spread out before them, is a sad mystery that the pure light of eternity alone can reveal. But, while to us these dispensations of Providence seem strange, and while the veil that intervenes will ever be impenetrable to us, yet we know that He who does all things right, is too wise to make an error, and too merciful to do wrong; hence, we bow with meek submission to all His dealings.

The following are the names, so far as your committee have been able to ascertain them, of our honored dead: J. T. BANKS, of Griffin; W. L. WILLIAMS, of Fayetteville; J. S. SIMMONS, of Gainesville; JOHN D. FISH, of Savannah; E. L. CRUMP, of Herndon; J. B. UNDERWOOD, of Cave Spring; J. N. VAN METER, of Euharlee; T. W. GRIMES, of Columbus, and ROBERT C. CARROLL, of Augusta. (Others, possibly, may have died in the State, and have not been reported to the committee, though the committee beg leave to state that we have endeavored by constant correspondence and enquiry to ascertain the names of all.)

As a faint tribute to their memory. we offer the following resolutions:

Resolved, 1st, That in transferring the above names of our Association from the roll of *active* membership to the roll "*In Memoriam*,"

we do so with feelings of sincere sorrow and deep regrets; and, while our hearts are sad, we know that our sorrow is not at all comparable to that of the families of our deceased brethren; therefore,

Resolved, 2d, That we wish sincerely to tender to their families our tenderest sympathies and most heartfelt condolence.

Resolved, 3d, That this report be spread upon the minutes of this Association, together with such memoirs as the committee may be able to get up, and that a copy of the Transactions containing them be furnished the families of our dead by the Secretary.

Respectfully submitted.

K. P. MOORE,
Chairman.

Dr. J. T. JOHNSON read by title a paper on "Some points in the surgery of the hand."

Dr. WILLIS F. WESTMORELAND announced a paper by Dr. PAUL FAVER, to be presented to the Committee on Publication.

Dr. W. F. WESTMORELAND, at 10½ o'clock read his paper which, on yesterday, had been made the special order for this hour—"a case of stone."

Dr. W. F. WESTMORELAND commented on a case of fracture of the neck of the femur, and Dr. C. L. SUMMEY was requested to furnish a report of the case.

The Committee on Prize Essays made the following report:

AUGUSTA, GA., April 18th, 1882.

To the President of the Medical Association of Georgia:

The Committee on Prize Essays respectfully offers the following report:

The chairman of this committee, after correspondence with a number of members of our Association, collected from voluntary subscriptions ninety-seven dollars, as a fund from which to pay such prizes as might be awarded. The following is a list of subscribers to the prize essay fund, with the amount given by each subscriber:

Drs. W. F. Holt, Macon, $5; C. H. Hall, Macon, $5; Eugene Foster,

Augusta, $5; DeS. Ford, Augusta, $5; H. F. Campbell, Augusta, $5; J. A. Eve, Augusta, $5; G. C. Dugas, Augusta, $5; J. E. Allen, Augusta, $2; A. H. Baker, Augusta, $2; S. C. Eve, Augusta, $2; E. C. Goodrich, Augusta, $1; G. B. Douglass, Sylvania, $5; Wm. O'Daniel, Bullards, $5; R. J. Nunn, Savannah, $10; J. B. Reid, Savannah, $10; J. C. LeHardy, Savannah, $10; G. H. Stone, Savannah, $5; E. H. Richardson, Jr., Cedar Town, $5; Robert Battey, Rome, $5. Total, $97.

Acting under instructions of this committee and of President LeHardy, the chairman had printed, and mailed to physicians of this State, fifteen hundred copies of the following circular letter:

AUGUSTA, GA., October 1st, 1881.

Dr.——————————

DEAR DOCTOR:

At the last meetiug of the Medical Association of Georgia, the following were appointed the Committee on Prize Essays. Drs. Eugene Foster, H. F. Campbell, R. J. Nunn, W. A. Love and Robert Battey. This committee was instructed to offer three prizes—one of fifty dollars, and two of twenty-five dollars each, for essays, to be presented under such regulations as the committee should decide upon. In accordance with these instructions, the committee offers a prize of fifty dollars for the best essay upon "Medicinal Plants, native or foreign, growing within the limits of Georgia."

The objects in offering this prize are, first, to increase our knowledge of the therapeutic value of such plants, and to add to the list of those already known; second, to obtain information as to the best methods of cultivating and preparing them for use and for market.

In order to attain these objects, and to enlighten the labor of the committee in awarding the prize, the following points must be treated in their order in the essays.

I. A description of the plant, its mode of growth, and the places where it is usually found. The description to be sufficiently clear as to lead to its ready identification.

II. The portions which are used, and the manner in which it may be prepared for market or for preservation.

III. The form in which it is administered, whether in decoction, extract, tincture or powder, etc.—the doses, and how often repeated.

IV. The effects produced on the general system, and upon particular parts, as the brain, nerves, circulation, glands, skin, etc.

V. The diseases in which it has been used with beneficial results, or the contrary.

VI. Cases in illustration.

VII. The best mode of cultivation, the soil best adapted to its growth, and whether, in the opinion of the writer, its cultivation could be made a profitable industry.

The committee also offers two prizes, of twenty-five dollars, for the best essays upon any subject connected with Medical, Surgical or Hygienic Science, provided that any essays are submitted to us sufficiently meritorious to be entitled to a prize. This provision is in accordance with the resolution of the Association.

An essay competing for the first prize need not be confined to any one particular plant, but may embrace as many within its scope as the writer pleases. It is necessary that all essays should be in the hands of the committee by the fifteenth day of March, 1882, in order to afford time for their examination. But the awards will not be made known until the meeting of the Association, at which time those receiving prizes, and such others as may be deemed worthy of honorable mention, will be read before that body, together with the names of the authors. Those receiving prizes will be published in the Transactions, and the others will be submitted to the Committee on Publication.

Each competing essay must be enclosed in a sealed envelope, addressed to Dr. Eugene Foster, Chairman Committee on Prize Essays, Augusta, Georgia, and marked with a certain word or motto, and accompanied with a separate sealed envelope, containing the name of the author, and marked on the outside with the same word or motto. These last envelopes will not be opened until the meeting of the Association, after the awards have been determined upon. All essays not received by the fifteenth of March next will be excluded from competition.

The several prizes will be given either in money, or gold medals suitably inscribed, of the respective value of each, at the option of the successful competitors. A writer may compete for one or all the prizes. It is not the object of the Association to confine the competition to its own members. The object is to elicit as much information upon the subjects as possible. The competition is open to all physicians practicing in Georgia, and you are cordially invited to compete for the prizes.

Respectfully submitted in behalf of Committee.

EUGENE FOSTER,
Chairman Committee on Prize Essays.

The cost of printing and stamping these fifteen hundred circular letters, was twenty-three dollars—leaving seventy-four dollars in the hands of

your committee. This amount the chairman of our committee has present at your disposal.

None of the essays submitted to us are up to the standard which the committee should have in view in awarding the prizes of the Medical Association of Georgia. We have, therefore, instructed the chairman of this committee to open the envelopes containing the names of the essayists and return each essay to its writer.

Unless instructed to the contrary, your committee will offer for the coming year a prize of fifty dollars for the best essay on any subject connected with the Practice of Medicine, Surgery, Obstetrics or Hygiene—provided such an one shall be found worthy of a prize.

Respectfully submitted.

EUGENE FOSTER,
HENRY F. CAMPBELL,
R. J. NUNN,
ROBERT BATTEY,
W. ABRAM LOVE,
Committee on Prize Essays.

Dr. GRIGGS offered the following resolution, supplementary to the resolution to memorialize the State Legislature on Inebriate Asylum:

Resolved, That the committee be empowered to provide for those physicians who are called in for expert testimony without proper remuneration.

Dr. WESTMORELAND advocated this amendment, and Dr. HOPKINS moved its adoption.

Dr. O'DANIEL moved that a special committee of three be appointed to memorialize the Legislature to pass this bill.

Dr. H. V. M. MILLER thought the expert should be summoned by the Court, not by the parties at issue. He pointed out forcibly the complications now attendant upon medical experts. Dr. MILLER offered the following as an amendment to Dr. GRIGGS' resolution:

Resolved, That a committee of three be appointed to memorialize the Legislature of Georgia upon the regulation of expert testimony before the Courts, and for the proper remuneration for the same.

Adopted.

The following was received:

The Board of Censors recommend that the resignation of Dr. T. W. DEAN be accepted; and report favorably upon the applications of Dr. K. C. Divine, Atlanta, Ga.; Dr. T. L. Rains, Atlanta, Ga.; Dr. E. W. Roach, Atlanta, Ga.

Dr. HALL, chairman of the Board of Censors, asked if advertisement of specialty in medicine by a member of this Association is or not a violation of the code of ethics; and if or not, the Board of Censors has plenary powers.

Dr. K. P. MOORE moved that it is the sense of this Association that the Board of Censors has plenary powers.

Adopted.

Dr. H. F. SCOTT, of Atlanta, called attention to an inaccuracy in the roll of deaths of members of the Association. In that roll, Dr. A. G. or A. F. COLLEY, of Walton county, is reported as dead, when, in fact, he is now living in Monroe, Walton county, Georgia. He was a former President of this Association.

[Neither of the initials agree with the name on the list. The Secretary would be glad to correct any errors that may be discovered in the rolls, if definite information is given him on the subject.—A. S. C.]

Dr. HALL, Chairman of the Board of Censors, made the following report:

Resolved by the Board of Censors, That Dr. D. O. C. HEERY, of Atlanta, having violated the code of ethics by advertising in a secular paper a specialty, that we recommend that he be expelled.

Resolved, That a copy of the advertisement be published with the report of the Board.

[COPY.]

"MEDICAL CARD.—Dr. D. O. C. HEERY, office at Messrs. LAMAR, RANKIN & LAMAR'S. Private office, No. 131 Marietta street, two blocks above the post office. Diseases of the rectum, genito-urinary organs and syphilis a specialty."

CHAS. H. HALL,
Chairman.

A communication was received from Dr. W. P. NICOLSON, Dean of the Southern Medical College, inviting the members of the Association to visit the building and grounds of that institution.

Dr. MOORE moved that the invitation be declined with thanks.

The following was received from the Board of Censors:

WHEREAS, The Augusta Library and Medical Society presented charges of violation of code of ethics against Dr. V. G. HITT, of Augusta, at the meeting at Thomasville, Ga., 1881, and the Board of Censors reported that he was not a member of this Association—his name not being on the roll of members, and stated that further action on matter was, therefore, unnecessary. This action being due to a mistake, and the Augusta Library and Medical Society having expressed dissatisfaction with the action taken thereon, the Board of Censors recommend that the Augusta Library and Medical Society be notified to present their cause of grievance at the next meeting of this Association (no records being accessible at this meeting), and that Dr. V. G. HITT be cited to appear and defend his cause. (Page, 33; Transactions, 1881.)

Adopted.

DRS. KENAN, WALKER and LALLERSTEDT, committee appointed to audit the Treasurer's account, reported as follows:

We, the committee appointed to audit the Treasurer's account, make the following report:

Collected from all sources	$251.00
Disbursements	246.90
Balance on hand for the years 1880 and 1881	$4.10

We find the Treasurer's Books neatly kept, with proper vouchers for all disbursements.

Respectfully submitted.

THOS. H. KENAN,
T. D. WALKER,
T. L. LALLERSTEDT.

Dr. W. A. LOVE gave, at 12 o'clock M., a verbal account of his paper which he wished to submit to the Committee on Publication.

Dr. DOSTOR moved that Dr. Love be requested to write out his views on iodine, and the cautery spoken of by him, and present his paper to the Committee on Publication.

The President announced as the committee on Dr. Miller's resolution: Drs. John Thad. Johnson, J. S. Todd, J. B. Baird.

Dr. C. D. SMITH asked if acids induced ptyalism after giving mercury. Some discussion ensued upon this query, though no definite conclusion was arrived at.

In the selection of the place for next meeting, Dr. Hall nominated Macon; Dr. McClesky nominated Atlanta. Dr. Alexander moved that Athens be selected as the place ot meeting. Dr. Johnson nominated Macon.

Athens was selected.

The resolution of Dr. MOORE, to thank the Macon Medical Society for their invitation to meet at Macon, was adopted.

The following resolution was introduced by Dr. EUGENE FOSTER, of Augusta, and passed:

WHEREAS, The Medical Association of Georgia has been in session in the city of Atlanta for the past three days, and its members have received hourly evidences of the kindness, good will and respect of the physicians and citizens of Atlanta, therefore, be it

Resolved, That this Association appreciates the many courtesies and attentions of the physicians of Atlanta, and return heartfelt thanks therefor.

Resolved, 2d, That to his Excellency Governor COLQUITT and his excellent lady, and to Mr. J. H. PORTER and charming wife, we feel profoundly grateful for the great kindness and respect shown our Association in the receptions at their charming homes on Wednesday evening, April 19th, 1882.

The President made the following appointments as delegates to the American Medical Association:

Drs. J. P. Logan, W. F. Westmoreland, Henry F. Campbell, Robert Battey, John Thad. Johnson, J. G. Thomas, C. H. Hall, E. Fitzgerald, George F. Cooper, T. S. Hopkins, S. B. Hawkins, J. W. Bailey, E. L. Connally, A. W. Calhoun, V. H. Taliaferro, E. W. Alfriend, E. K. Bozeman, A. W. Griggs, Thos. H. Kenan, A. B. Calhoun, W. O'Daniel, G. G. Crawford, W. S. Kendrick, F. A. Stanford, W. B. Wells, E. H. Richardson, J. T. Slaughter, Jno. S. Coleman, M. G. Hatch, E. H. W. Hunter, John. L. Hamilton, R. J. Nunn, W. H. Hall, P. L. Hilsman, J. C. LeHardy.

On motion of Dr. JOHNSON, the President, Dr. WM. F. HOLT, was added to the delegation as chairman.

Dr. HENRY H. BATTEY, of Rome, was appointed orator for 1883.

After a few remarks from President HOLT, the Association adjourned, to convene in its next session at Athens, on the third Wednesday in April (18th), 1883.

PRESIDENT'S ADDRESS.

DELIVERED BEFORE THE MEDICAL ASSOCIATION OF GEORGIA.

BY WILLIAM F. HOLT, M. D., OF MACON.

Gentlemen of the Association :

In the entire annals of our Society, I doubt if there has ever yet arisen an occupant of the Presidential chair to address this august body, who has not felt the full appreciation of the honor conferred by his nomination and election. With the dignity of the office is joined a laudable ambition of presenting to the members of the Association some topic or subject worthy of their consideration. The circumscribed life of a physician renders this grateful duty somewhat of a task. The deeper chords vibrating to the national weal or woe comes to our ears faintly between the moans of suffering humanity. The solution of political problems we entrust to others; our province is to allay, not augment human strife and pain. Leaving questions of scientific interest for abler pens than mine to discuss, I will briefly glance at the aims, difficulties and responsibilities of our profession, taking as the watchword of our advancement the lines of the German poet:

> "Divide and rule, the politician cries,
> Unite and lead is watchword of the wise."

And what better illustration of this truth could I find than that assembled in these walls to-day?—our own fraternity. Viewing the intelligent faces around us, noting the strong, unflinching hands that have grasped duty's standard, and with unswerving feet are carrying it firmly onward, it would require no prophet's voice to make us believe that in our unity lies our strength. Time is a miser in his gifts, and 'tis only at long intervals and with reluctance that he turns the keys of his coffers, and sends forth from his fortresses a giant intellect to guide the world—a skillful musician to find a lost chord in nature's harmony. Yet his niggardly and selfish purposes are often thwarted by the hearty co-operation of his humbler agents, and it is to the encouragement arising from the sympathetic union of soul unto soul that we are indebted for some of the brightest pages in the world's history. Seated on the throne of his desires, man in his arrogant egotism finds it hard to realize that more can be effected by united effort than by his unaided genius. The longings for power, the reverence for the trappings of royalty, its pomps and its pageantries, is inherent in almost every human breast.

With the gift of sovereignty—offered by the tempter to our Saviour in the wilderness as the price of sin—is joined the companion evils of contention, jealousy and strife. Discord needs not fostering care to insure its growth—it is a sturdy plant that springs up on the heaths and commons of man's nature, and requires a determined, brave spirit to uproot it from its resting place. Envious hearts are always ready to dim the brightness of the victor's fame, and a few croaking voices have pro-

claimed to a listening world that our profession stands ever ready to change a brother's plaudits into hisses, his praises into scorn. By our united and individual effort alone can these voices be silenced. Tortured hearts, appealing to human aid and power, will ever cry aloud to us—

> "Cans't thou not minister to a mind diseased,
> Pluck from the memory a rooted sorrow?"

No longer can we stand like the royal physician, a silent witness of the deep despair, but show ourselves healers of mind as well as bodies, by being always the first to herald a brother's triumphs, the last to note his deficiencies.

A lofty and spacious stage is given us for heroism in our lives,—a heroism undaunted but voiceless,—a self devotion that remains forever unshaken. Yet, even the most picturesque heroism involves sacrifice and suffering, and the life of a physician is by no means that of luxurious ease,—nor is the web of his destiny a silken thread.

The medical student finds himself, upon the threshold of his studies, confronted by difficulties from which he would shrink appalled, did he not find that his profession demands the devotion of his best energies for the alleviation of human suffering and distress,—life itself becoming the goal of his desires and efforts. As he dives deeper and deeper into the archives of the past, and peers with eager gaze into the misty, unexplored fields of future knowledge, he finds that to insure perfect success in his profession, the constant cultivation of both heart and brain must be his chief aim and object. It is a life that

admits of great concentration of mental forces,—the practical and theoretical being closely allied.

The worries and cares,—the rewards and compensations of our lives, have been experienced by each member of our fraternity. The bitterness of doubt and mistrust, given us oftentimes in return for earnest effort and anxious care,—the almost inaudible whisper, hinting of duty left unperformed and neglected, cease to be remembered, when loyal hearts whisper words of praise and cheer.

The ignorance that invested the disciple of healing with more than human power,—bowing down before his mandates as infallible,—together with the haughtiness that refused to admit a doctor within the "gilded pale" of society,—consigning him to the companionship of peasants and rustics,—has alike passed away, and the field of his present labor is both broad and deep.

Could a physician of the last century be permitted to visit some of the leading hospitals of the present day, he would view with astonishment the important changes and the rapid progress made by medical science.

Noble lives spent in studying the intricacies of the human organization, and devising remedies for its diseases, have done much to alleviate physical and mental suffering. The horrors of surgical operations have been lessened, and shock prevented by the administration of anesthetics; the difficulty and uncertainty in diagnosing the diseases of the larynx have been remedied, and its inner recesses mirrored before the eyes by the laryngoscope; many a moan has been hushed, and instantaneous relief given by the simple introduction of morphia by means of the hypodermic syringe; the microscope as an aid to

diagnosis is now almost indispensable to the physician, enabling him to positively determine the nature of scirrhous and other tumors, where before its introduction all was shrouded in darkness and uncertainty.

The sons of men have long been the only pilgrims that wended their way to the shrine of medicine, there to place on the altar the best gifts of their labor and love. To-day they are joined by a band of sisters, who ask to toil in the onward march, to chant the sad tones of defeat or swell the loud anthems of victory. Permission to labor was the simple boon they craved, and our chivalry should extend to them a welcome, since our profession can but be ennobled by woman's devotion and presence.

Since our last meeting the record of mortality has been unusually large, and it is with sadness that I note the death of six of our members: Drs. James Mercer Green and John R. Boon, of Macon; T. W. Grimes, of Columbus; J. B. Underwood, of Cave Spring; E. L. Crump, of Burke county, and J. N. Van Meter, of Bartow county. Although the names of the two first do not appear upon our roll, yet both of them were present and assisted at the organization of this Society in the city of Macon, in April, 1849.

While both were advanced in years, and compelled by ill health to relinquish, in a great measure, the active prosecution of a cherished profession, yet they ever manifested a lively interest in everything that would advance the welfare, and elevate the dignity of a profession, to which the best energies of their lives had been devoted. The Committee on Necrology will deem it a sad but grateful duty to prepare testimonials, commemorative of the high attainments and abilities of these eminent men.

Within the past few months an anxious world turned to the physician's skill for hope and encouragement during weeks of gloom and despair, when the life of the chief magistrate of the nation was in imminent jeopardy. With what feverish anxiety, and almost breathless silence did the nations of the earth await the daily bulletins that would announce his condition. To-day, the heart of the nation grew buoyant with confidence, when the glad tidings were wired to the world that faint hopes were entertained of final recovery,—only to find on the morrow, hope exchanged for the solemn hush of earnest but impotent sympathy.

Who can estimate the exhausting mental strain,—the intense anxiety and fearful responsibility resting upon the medical attendants, in the care and management of "a case of such unprecedented importance?"

While physicians may criticise the course pursued,—the treatment adopted,—none will question the fact, that to the watchful care and unremitting attention of his medical advisers was due the prolongation of the life of the distinguished sufferer.

Your serious attention is called to the financial condition of our Association. The treasury is depleted to such an extent, that the drafts upon it can no longer be honored. Our Society is not unlike other organizations, and requires a certain amount of money to lubricate the machinery, in order that its onward progress shall not be impeded.

The Committee of Publication have been greatly annoyed and perplexed by the *delay* in issuing the Transactions,—they have performed their duty with a zeal and

energy that is commendable, cheerfully contributing their time and labor, but were compelled to borrow money, in order that the demands of the printer should be cancelled before our annual meeting. This state of affairs should no longer exist,—a reform is urgently demanded, and I would earnestly recommend that the By-Laws be so amended that the annual assessment shall be increased. The present amount will not raise a fund sufficient to defray the expenses of publishing a volume of Transactions worthy of the Association and the State we represent.

I would invoke your earnest attention to the importance,—yea, absolute necessity of having a law enacted establishing an Inebriate Asylum within the borders of our own State. Who can estimate the benefits that would accrue from such an Institution properly organized and managed? "The care and reformation of drunkards is one of the most vital questions of the day. In the inebriate we have a combination of the lunatic, the moral imbecile, and often of the criminal." "There are more inebriates in the country than criminals,—they are more dangerous and injurious to the welfare of society. Though legally the inebriate is a responsible person, yet so far as the care of himself is concerned, he is the most irresponsible of beings." Intemperance is not only a local but a national evil. As we are powerless to prevent it, is it not our sacred duty as physicians, who are custodians of the health and comfort of those entrusted to our care, to *insist* that some suitable retreat,—some quiet home, should be provided for these unfortunates, where, with proper care and suitable treatment, they may be reclaimed and again become useful members of this grand old Commonwealth?

As Georgians we can point with pride to our State institutions. We have established, and in successful operation an Asylum for the Deaf and Dumb; an Institution for the care and education of the Blind, itself an enduring monument to the wisdom of its founders,—an Insane Asylum which has dispensed its blessings to thousands of that unfortunate class, and I fondly hope that the day is not far distant, when a home for inebriates will be found in our State. Let us then, my brethren, make an united and determined effort to induce the General Assembly to vote an appropriation sufficient to establish such an institution, —let a memorial urging its necessity and importance be presented to them, and I cannot permit myself to doubt that our efforts will be unrewarded.

Burke says: That a disposition to preserve and an ability to improve taken together constitute his ideal of a statesman. This high standard of excellence, promulgated by one who was eminently qualified to adduce from personal experience rules for the guidance of others, should be embraced by the votaries of science as well as the disciples of political craft—for a statesman serves a nation, while the earnest and successful student of nature, science, and art serves the world. In no *better* way can we show our desire to preserve, our ability to improve, than by exalting the standard of education and augmenting the varied and extensive acquirements necessary to enable the practitioner of medicine to perform successfully the duties of his office.

If there is one thing more than another that needs our *united*, hearty co-operation, our active, personal attention and heartfelt enthusiasm, it is the improvement of our

State Association. For the past few years it has not fulfilled the bright promise of its earlier days, the members are not so numerous, the interest not so great, the attendance at our annual meetings not so large as it should be. Each member finds himself, as the season for our annual reunion draws near, engaged upon active duties that require personal supervision. Sometimes professional engagements *demand* our absence, but oftener the selfishness and indolence of the human heart gives precedence to personal aggrandizement at the expense of the general welfare.

In our Association we should hear the voices of the ablest minds of our fraternity upon subjects of general interest and importance, and should listen to the results of individual research and attention. Many of our members who have not the time or inclination to express on paper thoughts and investigations connected with individual duties, might tell in *words* of personal experience and observation. There should be an honorable emulation to give such a charm of grace, dignity, and interest to our annual meetings, as would render it a deprivation to be absent from them.

Two more days do we linger in this hospitable "Gate City," engaged in the pleasant interchange of friendly greetings and brotherly counsel, then back again to the fatiguing but ever earnest duties, striving for the honors that gather around men of "steady pulses, tranquil nerves," each life seeking—

> "A worthy path! and count not wearisome,
> Long toil nor enterprise."

"But *strive* to reach it; aye, with wrestlings stout,
And hopes that even in the dark will grow
(Like plants in dungeons, reaching feelers out),
And ploddings wary and slow."

"Is there such a path already made to fit
The measure of our feet? It shall atone
For much, if we at length may light on it,
And know it for our own."

"But if there is none; why, then, 'tis more than well
And glad at heart ourselves will hew them out."

ANNUAL ORATION.

DELIVERED BEFORE THE MEDICAL ASSOCIATION OF GEORGIA.

BY J. P. STEVENS, M. D., OF MACON.

Gentlemen of the Medical Association of Georgia,
Ladies and Gentlemen of the City of Atlanta:

Since your last annual meeting, another year, with its joys and pleasures as well as its conflicts and trials, has been absorbed in the fathomless abyss of the past. Some of our members have put off their armor, and may we not hope, to lie down and rest amid "green pastures, and by the still waters," where flood perennial streams that in their pellucid, gentle murmurings, glide past the throne of infinite love. We are still active workers in our efforts to solve the great problems of life in our distinctive and special sphere. Others workers in the grand drama, from "early morn to dewy eve," expend their mental and physical forces in conducting to a successful consummation all those plans and purposes that conduce to the political, social, educational and religious advancement of the community; but we have met as conservators of the public health, without which all knowledge, all wisdom, all social communion, are "vanity and vexation of spirit."

Appreciating the importance and dignity of our mis-

sion, it becomes us to be clothed with a complete armature, not only of the æsthetics of our profession, which invokes the culture of our tenderest sympathies in gathering flowers from the hearts and affections of our patients, but in collecting from all available sources the weapons wherewith to combat the cruel assaults of disease and death. As we take a retrospect of several centuries, when blind superstition ruled the hour, and man ignored his powers of observation of natural phenomena, and wrapped himself in the mystic vestments of metaphysical speculations, we are amazed at the substantial basis of truth upon which rest so many of the aphorisms of "the father of medicine." More than two hundred years ago, the scientist who endeavored to explain natural phenomena upon rational principles, was looked upon as a heretic, as one demented by learning, who advocated principles far in advance of the age in which he lived, and was regarded as a proper subject, not only for social ostracism, but for the occupancy of the cells of a lunatic asylum. Galileo, for proclaiming that the earth is a globe and entirely subordinate to the sun, and inferior to many planetary orbs that compose the solar system, was imprisoned for many long years within the gloomy walls of a dungeon, and finally was compelled to publicly deny the validity of principles, the truth of which he had a conscientious conviction based upon clear and irrefragable demonstration. For the same offense, Giordano Bruno, with more fortitude than Galileo, was burned at the stake, and sacrificed his life upon the altar of truth. But truth is mighty and will prevail, though obstructed by the barriers which ignorance, prejudice and superstition may raise

to oppose her progress. The world, for hundreds of years, has recognized the truth of the principles enunciated and supported by those intellectual giants, of whom the age in which they lived was unworthy. Ours is pre-eminently the age of intellectual illumination and brilliant mental triumphs. As we take a retrospect of half a century, and observe the emergence of science from the mysticism of blind speculation into the broad ocean of truth, as revealed in the certitudes of the inductive philosophy, our minds are dazed with the scintillations of her genius and her positive accomplishments, not only in the expansion of the powers of the human intellect, but in enlarging the scope of human sympathies, and adding to the material wealth and happiness of our race. The progress of biology—the science of life—has been commensurate with that of all other sciences, and in the practice of our art it becomes us, not only to treat diseases by drawing our resources from the Materia Medica in its relations to the mineral and botanical stores that are accessible to us, but from all collateral sources that contribute to our necessities. I, therefore, invite your atttention to a consideration of the morbid and therapeutical properties of the atmosphere in its relation to disease and health.

You are all familiar with the component elements of simple atmospheric air, but even these change in their relative proportions in certain localities. Prof. Nicols' analysis of air collected in a filthy lane in Paris shows: Oxygen 13.79 instead of 23, nitrogen 81.24 instead of 76, carbonic acid 2.01, instead of 0.5, and sulphuretted hydrogen 2.99. But not only do we find this variation in the elementary constitution of the atmosphere, but it is now

conceded by nearly all biologists that the particles of dust that pervaded the air to a greater or less degree in all localities, carry along with them fermentative germs for the destruction of vegetable and animal life. The investigations of Pasteur, Tyndall, Bastian, and a host of industrial workers in this interesting field of inquiry have amounted to a demonstration. Tyndall discovered that dust-laden air had the property of self-purification; that when perfectly quiescent it had lost the power of scattering light and generating life; that is, that it became absolutely pure. He thus describes his method of illustrating this truth. He constructed a number of chambers, or cases, each with a glass front, its top, bottom and sides being of wood. At the back is a little door which opens and closes on hinges, while into the sides are inserted two panes of glass facing each other. The top is perforated in the middle by a hole two inches in diameter; closed air-tight by a sheet of India rubber. This sheet is pierced in the middle by a pin, and through the pin-hole is passed the shank of a long pipette, or small glass tube, ending above in a small funnel. A circular tin collar, two inches in diameter, and one and a half high, surrounds the pipette, the space between being packed with cotton wool, moistened by glycerine. Thus the pipette, in moving up and down is not only firmly clasped by the India rubber, but it also passes through a stuffing box of sticky cotton wool, moistened by glycerine. * * * The bottom, or floor of the box is pierced sometimes by a single row, sometimes by two rows of holes, in which are fixed air-tight, large test tubes, intended to contain the liquid to be exposed, to the action of the moteless air. The sides

and bottom of the chamber were coated with glycerine to catch the motes that were suspended in the air. A concentrated beam of light was projected through the glass window across the chamber, and its track was plainly visible through the motes in the air. Three days of quiet was sufficient to cause all the floating matter to fall and descend to the sides and floor of the chamber, where it was caught and held by the glycerine. The beam of light through the chamber which was so plainly visible three days before, had now entirely disappeared. This indicated that the atmosphere had been purged of its impurities, as the motes that reflected the beam of light had disappeared. A concentrated solution of hay, turnips, tea and coffee, among vegetables, and among animals, of beef, mutton, hare, kidney liver, fowl, pheasant, grouse, salmon, cod, turtle, mullet, herring, eel, oyster, were the subject of experiment. A portion of each of these solutions was introduced through the pipettes into the test tubes, inserted into the floor of the chamber. The portions of the tubes that extended below the floor of the box were immersed in oil, which was boiled for about five minutes, and after cooling, were kept at the temperature of the outside air. The contents of the tubes were examined about four months after, and found to be perfectly sweet, having undergone no organic change.

Now, to clinch the experiment, and subject it to the most rigid test, the door of the chamber was opened for the admission of dust-laden atmospheric air, and in from two to four days all of those substances were reeking with putrefaction. "In no single instance, on the other hand, did the air which had been proved moteless by the

searching beam shown itself to possess the least power of of producing bacterial life, or the associated phenomena of putrefaction. The power of developing such life in atmospheric air and the power of scattering light are thus proved to be indissolubly united. The sole condition necessary to cause these long dormant infusions to swarm with active life is the access of the floating matter of the air. After having remained for four months as pellucid as distilled water, the opening of the back door of the protecting case and the consequent admission of the mote-laden air suffice in three days to render the infusion putrid and and full of life. That such life arises from mechanically suspended particles is thus reduced to ocular demonstration." This experiment opens to us a wide and inviting field for contemplation and study of the bacteria-tribe of animalcular life that has, for the last 12 or 15 years, shed such a flood of light upon the practice of surgery, and upon the treatment of zymotic diseases in general. It would be interesting and instructive to pursue this subject *in extenso*, but time and space forbid. The subject of vegetable fermination is none the less interesting, when the dust-laden atmosphere is shown to be teeming with the spores of infusorial plants which, by their mysterious fermentative properties, mark out the processes of the alcoholic, acetous, as well as the fermentation of mould, and a knowledge of which has accomplished such felicitous modifications in the commercial manufacture of wines, vinegar and fermented liquors. It is conceded by nearly all biologists that the microscope has unmasked the countless myriads of our enemies, which for unnumbered ages have marshalled their forces in secret ambus-

cade and consigned to premature destruction inconceivable numbers of our race. Pasteur has comparatively recently pursued this line of investigation into the domain of vaccination among domestic animals. Through various stages of culture processes with the *bacillus anthricus* the destructive poison of poultry, sheep, hogs, and cattle, he has so attenuated this poison that by vaccination he bids fair to accomplish as great a boon to inferior animals as was that of Jenner to the human race. He says: "In France we lose every year by splenic fever animals of the value of $4,000,000. I was asked to give a public demonstration of the results already mentioned. This experiment I may relate in a few words. Fifty sheep were placed at my disposal, of which twenty-five were vaccinated. A fortnight afterwards the sheep were vaccinated with the most virulent anthricoid microbe. The twenty-five vaccinated sheep resisted the infection; the twenty-five unvaccinated died of splenic fever within 48 hours. Since that time my energies have been taxed to meet the demands of farmers. In the space of fifteen days, we have vaccinated in the departments surrounding Paris, more than 20,000 sheep and a large number of cattle and horses. * * * May we not be here in presence of a general law applicable to all kinds of virus? What benefits may not be the result? We may hope to discover in this way the vaccine of all virulent diseases." By the disease of the silk-worm, called *pebrine*, the loss to France in the single year of 1863 of her revenues from silk culture is estimated at twenty millions of dollars. Pasteur, through his microscopical investigations and experiments in discovering the parasite that was nourished

in the body of the silk-worm, and which destroyed its internal working machinery for spinning silk, applied the proper remedy, the disease was stamped out, and the silk husbandry was restored to France.

"Pasteur is so confident of the efficiency of the methods of treatment which his researches indicate, that he has been able to say, in his work on the silk-worm disease, that it is in the power of man to make parasitic maladies disappear from the face of the globe,—if, as in my conviction, the doctrine of spontaneous generation is a chimera." Such have been the extensive researches and positive accomplishments of this distinguished scientist, that Professor Huxley has declared that he considered the discoveries so important they were worth all of the immense indemnity claimed by Germany and paid by France in consequence of the Franco-Prussian war. This innemnity amounted to $1,063,000,000 (M. Villefort).

The government of Austria awarded Pasteur a prize of 10,000 florins for his investigations with reference to the silk-worm malady. The French government granted him a pension of 18,000 francs, "in consideration of his services to science and industry," and the Societe d'Encouragement awarded him a prize of 12,000 francs for his researches and discoveries relative to the silk-worm, wine, vinegar and beer.

A writer in the *Westminster Review*, speaks of Pasteur as one "whose researches have yielded so much material profit that one thinks of him as of the orange tree, standing in all the glory of blossom and fruit at the same time."

Napoleon Bonaparte illustrated France by the splen-

dor of his genius, and his brilliant military triumphs, but the brightness of his meteoric flight was quenched in the darkness of the fettered captive's solitude. Unnumbered thousands were sacrificed upon the altar of his insatiate greed, and millions more, in sighs and tears, cursed the hour of his birth. Louis Pasteur now lives to erect still higher his own monumental shaft, which, for centuries to come, will record the glory of his triumphs over disease and death, and "millions yet unborn will rise up and call him blessed."

We will now pass on to the consideration of the hygienic properties of pure atmospheric air.

Nature, always beneficent in her compensations, furnishes the antidote to every physical evil. We have seen that the atmosphere is at all times filled with floating germs of death always ready to make predatory incursions upon vegetable and animal organisms. Now, of all agents that resist and overcome the virulence of atmospheric poisons, we know of none more subtle and effectual than that of ozone; and we will devote a few thoughts to its chemical qualities and its influence upon disease and health.

We are indebted to Prof. Shonbein more than to any individual worker for the scientific history of ozone, and to Dr. Geo. M. Beard for its peculiar properties, and its influence upon animal and vegetable organisms.

In 1839, Prof. Shonbein discovered that in passing electrical sparks through dry oxygen, a peculiar odor was emitted, hence its name, from its Greek derivative. It is known that bodies when in *combination* present characters very different from those when in a *free* state.

The corrosive properties of ozone are very similar to those of oxygen, though greatly intensified in power. This intensity of action is thought to be attributable to oxygen in an allotropic condition, that is, in different states. The energy of electricity, it is well known, depends upon its impact while in a positive and negative state. So of ozone; it is thought to be oxygen in a polar condition, positive and negative. Again; its peculiar energizing power, Yeomans attributes to the peculiar arrangement of the atoms of oxygen while in the state we call ozone. Its oxidizing power is immense, quickly corroding antimony, zinc, lead, mercury, silver, and bismuth, upon which simple oxygen has comparatively little effect. In speaking of the arrangement of atoms in combination I can perhaps better explain my meaning by relating an anecdote of a Frenchman who, for the first time, was making a critical observation of what is called on the seaboard of Georgia, an "alligator cooter," from its savage aspect and ferocious temper. One peculiarity of the Frenchman's English was, if he got all of the words in a sentence, it did not matter to him in what order they were arranged. He wished to say that the reptile had the odor of musk, and that he had a long tail like the alligator. He expressed himself thus: alligator, musk, long tail, smell. You perceive therefore, that the beauty and power of language depends very much upon the proper collocation of words. So in atomic combinations, it is often in the arrangement of the atoms of a substance that its differing properties are attributable. Charcoal, lampblack, plumbago, and the brilliant diamond are composed of similar elementary constituents, though so diverse in their external appear-

ance, and relative values. The fragrant oil of roses, one of the most delightful perfumes of the toilet, and common street gas observe the same peculiarities. A compound atom of each is composed of four atoms of carbon, and four of hydrogen.

Ozone is intensified oxygen; that is, oxygen endowed with powerfully destructive, as well as health-giving properties.

PROPERTIES OF OZONE.

Ozone has a peculiar sulphurous odor which is very penetrating to the nasal organs. Air containing but one-millionth of it is said to be very perceptible to the sense of smell. It is a powerful disinfectant uniting with all putrid animal and vegetable substances, depriving them of all offensive odors, and rendering them innocuous. In this process it is itself consumed. According to Shonbein, air containing but 1-3,240,000 of ozone is capable of disinfecting its own volume of air filled with the effluvia evolved in one minute from four ounces of putrid flesh. Ozone purifies the air by destroying malaria and all disease-producing germs that float in the atmosphere. During thunder storms it is largely produced. Hence, the explanation of the popular idea that thunder storms purify the air. Ozone is similar to electricity in its physiological action upon the human body. It varies with the locality and with the season of the year. In low malarious districts, under the influence of high atmospheric heat where animal and vegetable decomposition is rapid, there is very little ozone in the air. Hence, the debilitating and enervating effects of our climate in the hot months of summer. It varies with the season of the year and the hour of

the day. It is more abundant in the winter and early spring than in the summer and early fall months, because in the latter the thermometric temperature is higher, and animal and vegetable fermentation is much greater. In the winter there is more frost and snow and less animal and vegetable decomposition to neutralize ozone. Every one is aware of the bracing effect of a clear, crisp, frosty morning, in electrifying the body and mind. This is thought to be attributable to the abundance of ozone in the air.

There are regular tides of ozone during the day and night. It is known that sunbeams and sound are transmitted through the air in waves. So it is with ozone. There is a high tide of ozone between 4 A. M. and 10 o'clock A. M., to be followed by a low tide from 1 P. M. to 4 P. M.; again, to ascend and reach its maximum about 10 P. M. Every one is aware of the languor and lassitude that usually oppress the system, on a warm summer day, and the disposition to sleep that prevails from 2 o'clock to 4 o'clock P. M. Upon the authority of Dr. Geo. M. Beard, Quetelet with Peltier's electrometer record, the aggregate amount of ozone between 6 A. M. and 9 A. M. to be 18.34; between 11 A. M. and 4 P. M. to be 6.05; between 4 P. M. and 11 P. M. to be 9.88. So you perceive that the golden period for study or work is between sunrise and 10 o'clock or 11 o'clock in the morning. Then the mental faculties are brighter, and the bodily faculties are energized by the repose of the night and the abundance of atmospheric ozone in the early morning.

Trees and flowers are said to be generators of ozone, especially such as emit fragrant odors. It is thought that the proverbial salubrity of turpentine farms, and the

pine woods in general, is attributable in a considerable measure to the evolution of ozone from the pine leaves and flowers. To this also may be ascribed in some measure, the health-giving properties of the eucalyptus and the sun-flower.

Fragrant fruits and flowers emit ozone, and they are eminent conservators of health. The rose, the violet, the geranium, the hyacinth, and many other beautiful and fragrant flowers, are health-preserving and health-producing in their properties. So those who delight in cultivating flowers are doubly repaid for their labor; not only in gratifying their love for the beautiful in nature, and in its refining, ennobling and purifying influence upon the life and character, but the fragrance of flowers which delight the nasal functions, at the same time, in its subtle chemical agency, purifies the air and confers health and vigor of mind and body.

Ozone in excess tends to blight certain fruits. Hence, upon the seashore, where the supply of ozone is usually abundant, the perfection of the ripening of fruits, especially peaches and plums, is often prevented; but a moderate amount of ozone in the air, it is thought, hastens the ripening process and intensifies the flavor of fruits by converting the starch, of which they are largely composed, into sugar. Which, indeed, is the physiological explanation of the ripening process in all fruits.

Ozone is abundant in high altitudes, among the mountains and well drained valleys, where there is not much vegetable and animal decomposition. It is especially abundant upon the seaboard and sea-girt islands. Hence the energizing effects of a trip to the summer resorts for pleasure and health.

Ozone acts energetically upon the nervous system of man and animals; diffusing its life-giving energies through every nerve and fibril of the body; quickening the circulation and respiration, dispensing joy and gladness to the despondent, intensifying the forces of the jubilant and active, tinting the pale face of beauty with the flush of the rose, and substituting elasticity and life for apathy and inertia.

I well remember that, many years ago, I had the professional care of a lady in one of the lower counties of this State, whose health had been fearfully broken down. Pale, listless and anemic, she was but the shadow of her former self. There appeared to be no organic disease, but a complete devitalization of the blood—a condition of excessive nervous prostration. A long course of regimen, and medication was faithfully pursued, but with little or no beneficial results, and we advised her to throw physic to the dogs, and immediately repair to the mountains of upper Georgia. She had barely strength to be carried to the nearest railroad depot, and was enabled finally to complete her journey. Surrounded by the enchanting scenery of Tallulah and Toccoa, and breathing the inspiriting atmosphere of the Blue Ridge, she soon recovered her accustomed elasticity and physical and mental vigor, while climbing over the mountain sides and amid the gleefnl murmurings of the crystal streams. On her return to her home, without the intervention of any remedial measures, her blanched and bloodless cheeks had assumed the redolent glow of renewed vitality and exuberant health.

Some valuable suggestions may be deduced from a knowledge of the peculiar properties of ozone.

It is well known that the atmosphere is ladened with latent germs or spores, which, under favoring conditions, generate diseases of varying types, according to the nature of the ærial poison. They induce fermentation of the blood in man and animals, giving rise to all kinds of sporadic and epidemic diseases. Disease arising at some focal point, favorable to its development as it widens, spreads with great rapidity, setting into fermentation the air of contiguous localities, until, in a short time, large cities, sometimes miles in extent, are overshadowed with the pall of death.

Now, the function of ozone is to attack these germs and destroy them; but at such times the quantity of ozone in the air is deficient at best, and it soon becomes vanquished by the power of overwhelming contagion, and disease runs riot in its carnival of death. Many municipal corporations, from dire experience, have learned the necessity of preventing the inception of local causes of diseases by the observance of the strictest sanitary measures. Boards of Health cannot be too lavish of the public funds in large towns and cities, so far as their expenditure is necessary for the utter extinction of all animal and vegetable debris, and of enforcing a proper system of sewerage, whereby all offensive substances may be removed, and the subsoil drained of all superfluous moisture and watery accumulations. How many precious lives, and what a vast amount of treasure, might have been saved in our own cities and towns by a proper understanding of the laws of health and their proper enforcement by those in authority. Yet it is lamentable to see the apathy, and still more, culpable ignorance, that is

often exhibited by those into whose hands are committed the safe-keeping of the lives and property of the thousands that dwell in many of our large cities.

A few years ago in the great city of New York, upon the authority of Dr. White, President of Cornell University—several members of the Board of Health were examined by Judge Whiting as regards their knowledge of hygiene, and the following colloquy occurred. Towards the close of the examination Judge Whiting asked this question: "Did you have a case of small pox in your ward?" "Yes, sir." "Did you visit the patient?" "No, sir." "Why not?" "For the same reason that you would not; I was afraid of taking it myself." "Did the family have any care?" "Yes, sir, they were *hyginnicks;* they doctored themselves." As the other witnesses came in, Judge Whiting used this as a sort of test question—as a sort of key to unlock the system, and show the utter ignorance that prevailed in every department of it. Every witness was asked: "Well, have you any *hyginnicks* in your ward?" Some of the witnesses thought they had; some thought they had not; some thought they had them pretty badly; some thought they had them in some parts of the ward; some thought they had them in other parts of the ward. At last, the Judge asked a witness who had been answering his questions in this way: "Do you know what the word *hyginnicks* means?" and he replied: "Yes, sir, I do; *it means a bad smell arising from dirty water.*" We then have an illustration of the necessity for a more general enlightenment of the public mind with reference to matters which so vitally affect our comfort and happiness. How often it is that local causes of disease exist

among families and small communities that generate disease of varied types, decimating whole families before the cause is investigated and discovered? Where is there a more deadly poison than sewer gas? How many hecatombs of innocents have been sacrificed upon the altar of stolid indifference or stupid ignorance. Gentlemen, as conservators of the public health, as guardians of the lives and happiness of the communities in which you live, it is your sacred duty to employ all of your intellectual and moral force in your efforts to repel this avalanche of human woes that annually numbers among its victims so many that are dearer to us than our own lives.

The absence of ozone often has a peculiarly prejudicial influence upon the health of many nervous and peculiarly susceptible temperaments. How many rheumatic and hysterical persons are enabled to predict a change in the weather, for twenty-four hours beforehand, by erratic and sometimes seated pains in their limbs and joints; by depression of spirits and often alarming apprehensions, and general purturbation of the nervous centres, immediately preceding a thunderstorm, or when a damp spell of north or north-east weather is imminent? Such persons usually receive very little sympathy from the healthy and robust, as their complaints are usually attributed to hypochondria, or hysteria. But the reality of suffering at such times is as palpable as that arising from toothache or neuralgia.

Again, in the management of the sick room, nurses, and, not unfrequently, physicians, are not sufficiently impressed with the value of pure air to the suffering patient. Often when the sick one is oppressed by laborious breath-

ing, burning fever, and tumultuous circulation through the distended veins and arteries, any avenue to the ingress of air is closely guarded, lest, forsooth, the patient might "take cold." The atmosphere of the sick chamber heavily charged with cutaneous and pulmonary exhalations, the blood itself poisoned with the *debris* of broken down tissues, it is at such times above all others, that oxygenated air is needed to purify the carbonized blood, and transmit its vitalizing energy to the oppressed and suffering groans. It is well known that consumptive patients need not so much a warm climate in winter, as one that is dry and equable; such as will induce them to spend much time in the open air, bathing in the blessed sunshine, and in that kind of exercise which will cause vitalization of the blood and increased functional activity of the digestive organs, and, consequently, a proper conversion of the elements of food into the organic tissues. Hence, the remarkable cures that are not unfrequently accomplished, in the incipiency of that disease, by a course of treatment that will supply the blood with the elements necessary to the proper maintenance of animal heat, and the development of the forces that are concerned in the nutrition of the body. This is accomplished by abundant digestible food, active bodily exercise in the open air, and the use of those medicinal agents that contribute to the maintenance of the chemical and vital forces. Dr. Paul Niemeyer writes: "The reader will allow me to recite the case of a patient of mine. A year ago, during his honeymoon, I congratulated him, and told him that a dry cough with which he was troubled was curable, provided he took care to live in the open air as much as possible, inuring him-

self to cold, sleeping in well-ventilated chambers, free from dust, etc. But this advice was hardly relished by the young pair. In October they hired rooms in a house that had been just built; its 'dampness' they remedied by keeping up fires steadily; the windows were hardly ever opened, as the house stood on a windy corner and the husband was growing more and more sensitive to cold; for this reason, too, he seldom went out of doors. In November he took to the bed, was again about, but he gradually declined, to the last hoping to recover. Different was the course followed by Mr. H———, who, emaciated and troubled with a cough, had a hemorrhage after contracting a 'severe cold.' He went into the country, took as much exercise as he could in the open air, and returned home with only a slight cough. At home every morning he took a warm bath, with affusions of cold water, avoided rooms with bad air, etc. In six months he was free from his cough, appeared to be well nourished, and no longer had any fear of taking cold." In every class and condition of society we know of none where the beneficent results of the subject discussed in our address are more patent and forcible than that of the *home* over which the gentler sex maintain their undisputed sovereignty. The poet has beautifully written—

> "Here woman reigns the mother, daughter, wife;
> Strews with fresh flowers the narrow way of life.
> In the clear heaven of her delightful eye,
> An angel guard of loves and graces lie.
> Around her knees domestic comforts meet,
> And fireside pleasures gambol at her feet."

But in the exercise of her sovereignty, which commands

through the winning smile, the eloquent eye, and the soft and gentle melodies that flow from her fathomless maternal love, how often it is that she is enslaved by imperative domestic duties and confined within doors, often for consecutive weeks. She consoles herself with the reflection that the discharge of the daily routine of house-work secures exercise enough for the maintenance of health. But be not deceived by such fallacious reasoning. Whence come the pallid cheek, the listless eye, the despondent spirit, the languor and lassitude so often observed in the mother oppressed by house-keeping and the ceaseless care of the little ones. The atmosphere of the dwelling kept in the most scrupulously neat and tidy manner, is very different from that which receives its life-giving energy from every opening flower, dancing leaflet, murmuring rill, and impetuous streamlet. Ozone cannot live within the walls of the nursery, or even within those of an ill-ventilated inhabited dwelling. It perishes when coming in contact with bodily exhalations, though it be the cooing of the infant, the merry laugh of the romping school-girl, or the melodious trill of the professional cantatrice. We know of no more valuable eleemosynary gift, by any of our cities, with easy and cheap access thereto, than a large and commodious park, embellished with stately, umbrageous trees, beautiful flowers, graceful fountains, soft and verdant lawns, where the mother, accompanied by her little heart-treasures, may, for the time, banish care, breathe the pure, vitalized air of heaven, and see the little merry babblers gamboling like skipping lambs upon the green and downy sward. In the absence of such a civic retreat, where practicable, let the mother daily spend a

few hours in cultivating the beautiful flowers at her own home; if possible, accompanied by the little ones, repair to nature's park, and under her tall, umbrageous trees, enlivened by the choral harmonies of the winged songsters and the gentle undulations of the purling brook, bow humbly at nature's shrine, and gratefully thank her for the privilege of inspiring her own pure breath and drinking at her own pure fountain.

Thus, gentlemen, though in a very imperfect manner, have I discharged the duty assigned me. These annual reunions mark an oasis in our professional life, a green spot, relieved of the carking solicitudes of our every day experiences; and, with unrestrained abandon, let us indulge in the blessedness of free, social intercourse, encircled by a band of fraternal union, and deliberate upon those great problems that conspire to the relief of human suffering and to the physical and social aspirations of our race. The ultimate gaol of human happiness should be the attainment of truth;—truth as revealed in nature; truth as revealed in grace.

Science in her subtle analysis, points to the source of truth; the spirit of grace assures of the realization of eternal truth. Blessed is the man who can follow the intricate labyrinths of the former, and by faith rest securely upon the everlasting foundation of the latter.

REPORT OF THE SECTION ON PRACTICE FOR THE SECOND CONGRESSIONAL DISTRICT.

By T. S. DEKLE, M. D., of Thomasville.

As a member of the Committee of the Second Congressional District of Georgia on the Practice of Medicine, it behooves me to make some report on the same. After mature reflection and deliberation, I will,—being prompted to endeavor to make a report on the prevailing diseases of this section, their type, character, etc., as well as the causes appertaining to them, as far as possible;—thinking and taking the position that in this way alone and in analogous directions could a proper, consistent report; one that would meet the indication or the design of the committee—be made. I feel impressed that the dereliction of reports from committees in this particular in the past, in a great measure, contributes to the lack of unanimity and innervation prevailing among the medical fraternity in the State, as well as the cause of the lethargy among the members of the Association. Reports in the past from committees, in a great measure, are not co-operative and general; but are mostly special reports, from individual practice, which might be considered a voluntary communication, and in fact should be so considered, as their value would be none the less estimable on that account.

Look to the teeming physicians of the country! Ex-

cite their observation. Stimulate them to interest in the great work that is being carried on; condense their observations into a report to the Association; the Association, by its critical test, eliminates the false, and arranges the facts for use—and the Association of Georgia, by its record of medical observation, will become an authority worthy of its mission.

Actuated, therefore, by the above impressions, I accordingly issued a circular to practicing physicians in the counties of Lowndes, Brooks, Thomas, Decatur, Mitchell and Dougherty. I received replies from Drs. Burton and Rogers, of Lowndes; Dr. Patterson, of Brooks; Drs. Reid, Hopkins, Clower, Baston, Taylor, Bruce, McIntosh, Tullis, Culpepper and Mallette, of Thomas; Dr. Bruce, of Decatur; Drs. Cull and Twitty, of Mitchell; Dr. Alfriend, of Dougherty.

By reference to the map of the State, you will perceive that the above named counties are in the extreme southern and western portion of the State, except Mitchell and Dougherty, which lie north of Thomas and Decatur, on the line of railway from Savannah via Thomasville, to Albany. The other four counties border on the Florida line, and are pierced by the S. F. & W. Railway.

The idea has prevailed in other sections of country north of this, that this section is a hot-bed of malaria. Now the reports received from the above named physicians, from the above named counties, go to show that fevers of malarious origin do not prevail to that extent that opinion from outside sources would suspect.

Taking in the first place, Drs. Burton and Rogers, of Valdosta, Lowndes county, to the

FIRST QUERY.

What class of diseases have been most prevalent in your practice the past year?

ANSWER.—No particular class of diseases prevail, except a few cases of typhoid fever, (to which I will in the future refer) and some diarrhœa, almost entirely confined to children in dentition.

2D. BROOKS.—No special class of diseases prevailed.

3D. THOMAS.—Diseases other than malarial prevailed most.

4TH. DECATUR.—Mild typhoid fever.

5TH. MITCHELL.—Epidemic and contagious diseases.

6TH. DOUGHERTY.—Measles last spring, and early summer, with pneumonia; later, autumnal fevers.

SECOND QUERY.

Did malarial fevers prevail to the same extent as the preceding year?

1ST. LOWNDES.—Malarial fevers prevailed in a few localities.

2D. BROOKS.—Malarial fevers did not prevail to the same extent as the preceding year.

3D. THOMAS.—From eleven active practitioners, eight saw less malarial fever; three report more in their practice.

4TH. DECATUR.—Malarial fever did not prevail to the extent as the preceding year.

5TH. MITCHELL.—Malarial fevers have greatly diminished in the past few years in the number of cases.

6TH. DOUGHERTY—Not purely malarial as before.

THIRD QUERY.

What type of malarial fevers prevail most?

1ST. LOWNDES.—Intermittent fever prevailed most.

2D. BROOKS.—Remittent fever prevailed most.

3D. THOMAS.—Intermittent and remittent about equal.

4TH. DECATUR.—Remittent.

5TH. MITCHELL.—Did not state special type.

6TH. DOUGHERTY.—Remittent, complicated with typhoid element.

FOURTH QUERY.

Were they more malignant?

1ST. LOWNDES.—Not malignant.

2D. BROOKS.—Not more malignant.

3D. THOMAS.—Less malignant.

4TH. DECATUR.—Less malignant.

5TH. MITCHELL.—More mild.

6TH. DOUGHERTY.—Not malignant, but had a tendency to be continued.

FIFTH QUERY.

Did typhoid fever prevail?

1ST. LOWNDES.—Typhoid fever did exist, but not generally, and traces its cases to a certain colored individual, who was attending school, at Atlanta; came home on a visit, sick with typhoid fever, and from that case the disease spread, first through his father's family, then to those who had visited and assisted in nursing the family. The disease did not spread outside of an area of one mile.

2D. BROOKS.—No report.

3D. THOMAS.—The predominating report points to the prevalence of the disease, not as an endemic, but occurring in the practice of several practitioners. Several cases were imported, whilst other sporadic cases occurred—the cause and source were not well defined.

4TH. DECATUR.—Prevailed, though other practitioners doubted its existence; yet, when typhoid treatment was instituted, the patients did well; generally mild.

5TH. MITCHELL.—Opinion conflicts as to the prevalence of the disease—Dr. Cull denying, Dr. Twitty affirming—though, he says, the cases were by no means great; generally mild.

6TH. DOUGHERTY—No typical typhoid fever—Dr. Alfriend; pure type—Dr. Hilsman.

SIXTH QUERY.

With reference to observation of causation.

1ST. LOWNDES.—One case imported was the means of spreading the disease to those who lived in the same family with the case and to those who visited and attended upon it.

2D. BROOKS.—No special observation as to causation.

3d. THOMAS.—Various observations, which are suggestive.

Drs. Reid and Culpepper observed that where malarious fevers prevailed most in the past, they did not exist to a greater extent than in localities where heretofore it did not exist.

Dr. Hopkins—That type of diseases have changed in a great measure in the last four years;—where we had intermittent we now have remittents.

Dr. Mallette—Families using water from the same well, had for several years suffered from malarial fever, every year, until an application six inches deep of charcoal for several feet in circumference around the well. Since said application, the fever has disappeared, and they have been exempt for the past four years.

Drs. Taylor and Bruce—That wells being very low on account of drought last year, concentrating the germs

thereby making the water drank the vehicle for a greater quantity of specific germs of disease.

My observation has been attracted to several coincidences or causes. Out of the number I select two:

First. A certain place with good drainage; no ponds or lakes within two miles; the nearest water-course two miles; pine forest; sandy loam, with red clay foundation; exempt from malarial diseases. Upon deadening and clearing of the forest (about seventy-five acres) and breaking the soil immediate to and adjoining the residence and quarters for hands, whilst the timber was in the fermenting and dying state, and the land being broken, the white as well as the colored families, contracted intermittent fever, and for two years suffered. After the timber had all decayed and the land became well cultivated, the disease disappeared, and for the past eight years malarial diseases only occur occasionally, and confined to one individual at a time, leaving the question of cause to be settled only upon the supposition that some other place than home was the source of infection.

Another: A certain gentleman whose family, as well as laborers, suffered yearly with malarial diseases. In the immediate neighborhood, about one-quarter of a mile northwest from his house, was a large cypress forest—probably containing some fifty or sixty acres—covered from six inches to about four feet in water. He conceived the idea that this was the source of infection; whereupon he ditched this pond, and after the water ran off, and as the summer came on, his family, as well as laborers on his plantation, became affected, and finally prostrated, with a malignant type of malarial fever. Himself and two other

members of his family died, as well as some of his laborers. Others, who lived from three-quarters to one mile away, were affected with malaria to a greater extent than at any season before. After the swamp had dried off, and a season sufficiently dry occurred, fire being applied and the swamp thoroughly burnt out, the disease gradually began to abate, and finally disappeared, so far as prevailing generally. A case now and then occurs with individuals.

If we take the above two observations, we observe a remarkable difference as to source from which the specific agency emanated. In the first instance, we have a high, well drained forest, when deadened, cleared and plowed, produced chills universally among the families adjacent to it; and after the timber had died and the land had become cultivated, the chills and fever disappeared, and for eight years only occasionally a sporadic case occurred. In the second instance, we find a pond or cypress swamp covered with water, entirely opposite the first, where, it was supposed, emanated the poisonous element that affected the inhabitants around it, though only occasionally. We gather force, make an attack by draining the water off; that arouses its ire, and it hurls back its venom, prostrating whole families,—and some unto death. Whilst its energies are at its height, we. effectually apply the purifier—the fire—and rob it of its sting.

With these remarks, I will close. If, perchance, they may conduce to throw some light into your honorable body, or stimulate others of our brethren to closer observation, and cause them to throw their mite into the Association, my object will be accomplished.

REPORT ON SURGERY FOR THE SECOND CONGRESSIONAL DISTRICT.

By P. L. HILSMAN, M. D., of Albany.

Case I.—Nelson, colored, aged 8 years; delicate; predisposed to convulsions from trivial causes, became convulsed from toothache, and fell into the fire. No one else being present, he remained for some time with the left side of neck and corresponding hand, in contact with burning coals. Being summoned at once, I found the patient in a state of shock, from which he gradually rallied, under the influence of anodynes and whiskey. The burns presented a charred appearance. Ordered a dressing of carbolized linseed oil, ʒiij to Oi. On third day oil was substituted by poultices of flax-seed meal, which was continued until all devitalized tissues had been thrown off. The slough was deep, the trachea and sterno-mastoid muscle being exposed. Oil dressing was now resumed and kept up for ten days, when the surface of the ulcer presented a healthy granular appearance. The head was drawn to the side by the extensive cicatrizing wound which involved the entire tissues of the left side of the neck, being bounded by the chin and mastoid process above, and the clavicle below.

Realizing the probable inability of nature, unaided, to cover the parts with cuticle, and the frightful deformity

necessarily resulting, I resorted to skin grafting. Twelve pieces taken from the arm of the patient were applied over the surface of the ulcer, which was then dressed with carbolized zinc ointment, ♏x to ℥i. Nine of these grafts remained vital and soon began to spread, and coalescing, covered the ulcer entirely with cuticle. There is still some retraction of the head to the side, but the deformity has been greatly obviated, and the healing process much facilitated by the skin grafts.

CASE II.—Henry J., colored, aged 13 years, received an injury to the left arm by the accidental discharge of a shot-gun, (loaded with bird shot). The muzzle being in close contact with the arm, the deltoid muscle was torn away, leaving the bone exposed for two inches. There was but little hemorrhage. The ragged edges of the parts were trimmed off and the wound having been cleansed of all *debris*, was dressed for three days with lotion, viz: ℞. Tinct. opii., ℥i; glycerit. acid. carb., ℥ss; aquæ camph. q. s. ut. ft. ℥viij. M. Flaxseed poultices were now applied until all devitalized tissues were thrown off, after which the carbolized linseed oil was applied until the wound had filled up with new tissue, presenting a raw surface of 4 x 5 inches. The ulcer was now thickly set with grafts of skin, taken from the arm of the lad's father, and dressed with carbolized zinc ointment. A sufficient number of the grafts took at first sitting, although the patient rode from office to a distance of six miles in the country on a mule. The healing was now rapid, and uninterrupted, leaving a scar that was trivial when compared to the loss of tissue.

CASE III.—Jennie T., colored, aged 42 years, consulted me

on March 20, 1881, in reference to a painful swelling in right mammary gland. *History*—About three years ago noticed a lump in breast, which gradually enlarged; pain becoming more excruciating as the mass developed. She has lost flesh, and is much debilitated from want of sleep, in consequence of pain in the gland. *Appearance of gland*—The entire structure indurated; nipple retracted; skin adherent; adjacent lymphatics indurated. The nature of the malady being evidently scirrhous, an operation was urged; to which the patient readily assented. *Operation on the following day*—Patient having been brought under the influence of chloroform, an elliptical incision was made so as to include all adherent skin; and the entire gland, with all suspicious tissue, removed. There was free hemorrhage, necessitating the application of two ligatures. The wound was now freely sponged out with carbolized water (1 to 31) and edges approximated by strong, interrupted sutures, there being considerable tension, owing to the large amount of skin removed in the ellipse. Additional support was made by strips of adhesive plaster. A compress of absorbent cotton, saturated with the carbolized wash, was now applied, over which oil silk was placed, to prevent evaporation of the antiseptic. Dressing was now completed by the application of flannel bandage. No constitutional symptom followed. Wound was dressed on eighth day—there being union by first intention. Dressing changed again on fourteenth day, and stitches removed. Ligatures being firmly attached were allowed to remain until twenty-first day, when they were removed by forcible traction.

Patient improved very much in general health until

about the middle of July (four months subsequent to the operation), when the disease manifested itself again in glands of right axilla and left mamma. The patient declined to submit to a second operation. The disease, being unchecked by constitutional remedies, ran a rapid course, terminating fatally in December, about five months after the second invasion.

CASE IV.—Fatty tumor. Flora S., colored, aged 55 years. *History*—Noticed a lump over the right scapular region about six years ago. The mass gradually increased until its proportions became so unsightly that she consulted me

as to the propriety of its removal. Being assured of the benign nature of the growth and little danger attending its removal, she readily consented to the operation. *Operation*—Patient being chloroformed, an elliptical incision was made through the skin—including a sufficiency

to prevent overlapping after the removal of the tumor. The operation was now rapidly completed by dissection, aided by enucleation with the hand. There was but little hemorrhage, tortion sufficing to check it. The wound was now freely washed out with carbolized water (1 to 31) and accurately approximated with interrupted sutures. A compress of absorbent cotton saturated with the lotion, was now applied, over which was placed oil-silk, and dressing completed with roller bandage. Dressing renewed on seventh day. Stitches removed on twelfth day. The entire wound healed by first intention, without one drop of pus. The dimensions, etc., of the tumor I have intentionally omitted, as I accompany the report with a photograph of case.

CASE V.—Hypertrophy of the vaginal portion of the cervix uteri. Operation for its removal.

Mrs. R, aged 35; mother of four children; last confinement four years ago, since which time she has suffered from prolapsus uteri. Digital examination reveals an indurated mass situated between the labia. Carrying the finger into the vagina, the structure is found to be continuous with the anterior portion of the cervix. *Operation.*—Patient being placed upon side, and parts exposed with Sims' speculum, the mass was now grasped with a vulsellum forceps and sufficient traction made to bring the healthy portion of the cervix on a line with the vaginal outlet. The organ was now steadied with a tenaculum, to prevent retraction, and the hypertrophied structure removed with scissors. Hemorrhage was very free. The sesquichloride of iron was freely used but failed to influence the flow. I then covered the stump with

mucous membrane by bringing the edges together with six interrupted sutures of silver wire, which effectually checked all flow. The vagina was now cleansed with a tepid carbolized douche, and patient confined to bed. No untoward symptoms followed. Vagina was daily cleansed with carbolized wash, for five days, when stitches were removed, and patient allowed to return to her home in the country. The structure removed was about two inches in length, resembling much in appearance the teat of a cow. One month after the operation the patient reported at office, much improved, is relieved entirely of her aches, and is able to do her household duties.

CASE VI.—Epilepsy from a depressed fracture of cranium. Depressed bone removed by trephine. Death on sixth day.

Benjamin K., aged 32, received a blow on the head about six years ago. Being under the influence of liquor at the time, he did not know what implement was used in inflicting the blow, but presumed it to have been a hatchet. On day following he was able to attend his daily avocation (driver of butcher's wagon) and continued to do so until seventh day of the injury, when he applied to me for advice. On examination, I found a granulating wound of the scalp, for which I ordered some simple dressing. The patient did not make much complaint of his injury, hence my examination was superficial. He continued to attend his duties until the twelfth day, when he became convulsed. Being called to see him, I made a careful exploration of the wound, and found the external table of the skull comminuted. The spicula of bone were removed and wound dressed with carbolized

zinc ointment. The point of injury was situated on the left parietal region, about three inches above the coronal suture, and in close proximity to the longitudinal sinus. There was now complete hemiplegia of left side, being the corresponding side of injury, hence I was at a loss to account for the symptom. The patient was kept under the influence of bromide of potash, and after the lapse of a week, the convulsions were under control, his mind clearing up and the hemiplegic symptoms disappearing. The scalp wound was now healed. His general health was soon restored, but he has never fully regained the use of left side. He has been occupied for the past few years

at light work, and until the past two months has been enabled to earn a livelihood. The epileptic attacks have in the meantime continued to recur from time to time, though kept much under control when he kept up the salts of bromide. For the past few weeks he has manifested considerable symptoms of cerebral softening, walked with greater difficulty, being unable to stand without staggering, as if intoxicated. Was also unable to control his thoughts—jumping from one subject to another. In this condition I was called to see him, and decided to give him the benefit of the faint hope that an operation held out to him. A consultation was now held with the following gentlemen: Drs. Alfriend, McMillan, Cromwell, Bacon, Strother and Kendrick, the latter being a brother of the patient. The operation being advocated without delay, assisted by my consulting friends I removed the depressed bone with the trephine. Operation, April 11,

12 o'clock, M. Patient was chloroformed, a convulsion occurring during the administration, caused some delay. The hair having been closely cut, a T-shaped incision was made through the scalp, well down to the bone, and the flaps dissected back. Hemorrhage was controlled by torsion. The cranium being freely exposed, the trephine was applied over one angle of the depression, its circumferential margin unavoidably reaching very near to the longitudinal sinus. With great care the bone was sawed through, and greatly raised from its bed with the elevator. The depressed spiculum was found to be attached to the base of the circle included in the trephine, having its free edge imbedded in the membrane of the sinus. Gentle traction was now made, hoping that it might be detached without rupturing the wall of the vessel, but its removal was followed by a free gush of blood from a rent in the vessel.

The hemorhage was controlled by pressure with the finger until the scalp could be closed by silver sutures. A firm compress was now applied over the point of trephine by a sponge saturated with carbolized lotion (1 to 31), aided by a pledget of absorbent cotton and a firmly applied roller. Hemorrhage being completely controlled, the patient was placed in bed with his head elevated. Cold clothes were now applied, and compress frequently saturated with the carbolized lotion. Patient rallied well from the anæsthetic, and was ordered ʒj brom. potash. 3 o'clock P. M.—Pulse, 100; temperature, normal; sleeps quietly; intellect unchanged; voided urine voluntarily. 7 o'clock P. M.—Pulse, 85; temperature, 98; bowels moved voluntarily; ordered bromide at bed-time. April 12, 8 A. M.—Pulse, 80; temperature, 98; ordered milk and animal

essence. 7 P. M.—Pulse, 85; temperature, 98. April 13, 8 A. M.—Pulse, 85; temperature, 98. April 13, 7 P. M.—Pulse, 100; temperature, 100; ordered Rochelle salts. April 14, 8 A. M.—Pulse, 90; temperature, 100; marked hebetude, muttering delirium; complete hemiplegia of left side. 7 P. M.—Pulse, 100, quick; temperature, 99. April 15—Pulse, 100; temperature, 99; is aroused with difficulty; discharges urine and fæces involuntarily. 7 P. M.—Condition unchanged. April 16.—Pulse, 120; respiration hurried and stertorous; swallows with difficulty The dressing was now removed (being the eighth day of the operation). The wound in scalp was entirely healed by first intention. The cerebral pulsation was quite as perfect as that of the fontanelle of an infant. With so favorable an external application, hope was again entertained that the cerebral symptoms might be due to pressure of the compress exerted by the bandage, and that they might gradually disappear after its removal. In this, however, we were sadly disappointed, complete coma soon coming on, in which state the patient died, at 7 o'clock P. M. Post-mortem examination was positively refused.

REMARKS.—The writer regretted very much that the immediate cause of death could not be ascertained by examination post mortem, but is inclined to the belief that it was due to the rupture of a vessel, with apoplectic effusion in the right hemisphere incident to advanced softening, hence the hemiplegia on left side, occurring on third day of the operation. The healthy appearance of scalp wound and the depressed and pulsating condition of that part within the trephine, would exclude the idea of abscess or extensive blood clot at this point.

FISTULA IN ANO—WITH REPORT OF THREE CASES.

By L. M. JONES, M. D., of Gordon,

Member of the Section on Surgery for the Sixth District.

On presenting this paper, I do so from a sense of duty, feeling my incompetency to write anything that would give much light to so learned and sage a body of medical gentlemen as this.

While I shall not attempt a full essay on this subject, I hope to make this paper of some interest in the cases to be reported.

Fistula in ano is a sinus left by the contraction of the cavity of an ischio-rectal abscess. The extent varies considerably in different cases, sometimes being tissue merely the sinus left in the submucous areolar of the anus after the bursting of a superficial abscess extending to a short distance up the gut. The lower and external opening of the fistula is most frequently single—this being so in two of the three cases to be hereafter mentioned—the third having two. I don't know that there is any limit to the number of external openings in a fistula in ano, for I heard of an old man when I was a boy that had seven.

Fistulæ are of two varieties, viz.: the *complete* and the *incomplete.*

They are said to be *complete* when they communicate with the interior of the rectum, and open by the other upon the external surface. *Incomplete* when they have only one aperture, whether that be internal or external. The most common form being *complete*—the opening in this form of fistula being usually from half an inch to an inch from the margin of the anus; though it may be at a greater distance than this. The opening is usually small, and a thin, purulent discharge drains away from it in small quantities—occasionally fæculent matter passes through it.

The *incomplete*, or blind fistula, may be of two kinds, and usually arises from some constitutional cause. An incomplete fistula may be termed *blind internal* or *blind external*—the former opening on the inside, the latter upon the outside. The external is very readily detected—not so with the blind internal. I will not say anything here as to treatment, as my views will be given in the cases to be reported.

CASE I.—J. T., male white, aged 35, consulted me on 13th February, 1881; said he was "in a strange fix;" "had been unfit for work for six months, having chills," etc., etc., and that he had something about his bowels, he feared, would ruin him for life; seemed perfectly despondent, and promised anything, provided he could get relief. Upon examination I found him with *complete* fistula in ano; the external opening being on the right side and about an inch from the margin of the anus, taking an oblique direction upward and entering the bowel about two inches from its external sphincter. I will state here that the patient was troubled with internal

hemorrhoids. He informed me that this opening had existed for about six months—the abscess having appeared sometime before the fistula, but never was extensive, being a small, pointed, tender tumor. The fistulous tract was exceedingly tender, bleeding readily upon introducing my probe. I at once decided upon operative interference, and explained the nature of the operation to him. Directed him to take a brisk dose of oil and turpentine that night, and that I would operate the next day. Accordingly I was on hand about 10 the next morning—bowels had been cleared out nicely, and I made ready for the operation. Having administered chloroform, I placed the patient on his left side, with the nates projecting over the edge of the bed. The opening being too small to admit both probe and bistoury, I proceeded to introduce a small *probe*-pointed bistoury, while the index finger of my left hand explored the rectum. Carrying the point of my instrument well up through the entire tract of the sinus until it entered the bowel, coming in contact with the end of the aforesaid index finger, I made a pressing cut, bringing the point of the bistoury down and out with the finger. This completed the operation, there being no hemorrhage of consequence. I then directed a small piece of oiled silk to be kept in the wound, and the introduction of a probe at the dressings to prevent the bridging over of the granules until the tract could fill up. I further ordered the bowels to be kept locked for two days with opiates; then give oil.

I visited him on the second day, and found wound doing well. On the fourth day, made another visit without having notified patient of my coming—and on my

arrival found, to my great astonishment, and contrary to my advice, he had gone from home, a distance of sixteen miles in a buggy. The next I heard of him he was perfectly well—had gained in strength and weight, able to work on the farm, and to ride on horseback—a thing he had not done in eight or ten months previous to operation.

CASE II.—Female, aged 45—consulted me June 28th, 1881; found her suffering with *complete* fistula in ano of several years standing; had been troubled with ulcers of the rectum, and treated with caustics, etc. I advised her as to the necessity of a thorough operation, to which she consented. Ordered the bowels thoroughly evacuated, and on the following day I proceeded with the operation in the same manner as described in case first. The wound did not progress as nicely as did the one in case first, from the fact that patient was a sufferer from chronic diarrhœa and addicted to the opium habit to some extent. It was impossible to lock the bowels in this case, therefore the frequent actions kept up an irritation and removed the pledget of lint so often, the healing process was very much interfered with. All of this to contend with, it went on to final recovery in the course of five or six weeks. Patient holds to her laudanum bottle yet, and diarrhœa follows her; still her general health is *much* better. Has not had a physician with her in nearly twelve months, whereas, before, she never went a month hardly without one.

CASE III.—As I was passing the residence of Mr. J. I. K., Baptist minister of about 40 years, was asked to stop and see Mr. K. I found him suffering with ischio-rectal, abscess on both sides anus. Abscess on one side had

been opened freely some weeks before, but the discharge continued through the opening. Not being his family physician I did not take much interest in the case, but advised him not to have any operative interference in the inflammatory condition it was then undergoing.

Not long after this I received a note from Mr. K. informing me that his physician had decided to operate; that other physicians would be there and requesting me to be present on the following day, at 9 A. M. Not being professionally engaged otherwise, I was on hand at the stated time. There were two places of discharge by this time; do not remember whether abscess had been lanced in but one place or no; neither sinus extended to the bowel. We had here an *incomplete* blind external fistula, (or fistulæ) with which to deal. It is given up to be the best practice in treating the incomplete variety, first to convert them into the complete, but it was decided not to convert this into the complete as its tract and internal termination was so far from the bowel. The operation consisted in slitting up both sinuses with the bistoury to their full extent, touching them lightly with nitrate silver, then filling them up with carbolized lint in order to make them heal from the bottom. As stated before, not being his regular family physician, I saw nothing more of the case for a month or more, but kept up with it. He was given tonics from the beginning of the treatment, consisting of quinine and iron, maltine and wine, cod liver oil, etc. The case was treated locally with caustics, stramonium ointments, carbolic lotions, etc., but patient lingered for months before the discharge ceased, and fistula entirely cured. I will add that as soon as the discharge

began to lessen, a cough ensued which continues to this day (15th April, 1882) with all the indications and symptoms of phthisis pulmonalis. The point in this case is: was phthisis ready to develop, and was that peculiar condition of the system the cause of the abscess and fistula, or could the pulmonary trouble be attributed to metastasis?

THE RELATIVE MERITS OF HUMANIZED AND BOVINE VACCINE VIRUS.

By EUGENE FOSTER, M. D.,

President of the Board of Health, Augusta, Georgia.

Mr. President:

In no department of medicine is fashion so regnant at the present time as in the principles and practice of vaccination. Notwithstanding the fact that vaccination has been known and practised for eighty-four years; that it has saved millions upon millions of human lives; that it has engaged the attention, and, after much opposition, secured the advocacy of the whole medical profession with a unanimity never to this time accorded any other question in medicine, we find some of the points in relation to it, according to the medical literature of the day, involved in nearly, if not quite, as much uncertainty as when Jenner announced his discovery.

I shall not insult the intelligence of this learned body by discussing the efficacy of vaccination. If there be one in this Assooiation who is ready to question it, I will dismiss his flimsy disputation with the reply of William Allison, M. D., F. R. S. E., who said: "On this subject there has been quite sufficient information collected, since the date of the papers, held decisive of the question fifty years ago, to show that the same inference is still inevi-

table, and that he who disputes it is equally unreasonable as he who opposes, in like manner, any proposition in Euclid."

Bovine virus is the fashion of the day. A number of physicians assert that it is wrong, and some go so far as to say it is criminal for any physician to use humanized when bovine virus can be obtained. The people—"the dear people"—who in the good old days of yore were ready to take prussic acid, arsenic, or strychnine, upon the advice of the physician without asking a question about the danger, will now ask him with as much nonchalance as they will ask a grocer the price of a pound of tea, "what sort of virus, human or bovine, do you propose to use?" and they will with equal coolness say if or not they will take it.

The objections urged by some physicians against humanized virus are, 1st. Degeneration by successive transmissions through the human system; 2d. Transmission of diseases such as syphilis, scrofula and consumption.

To a fair and impartial investigation of these questions, I respectfully invite your attention. To this enquiry I propose to bring the experience and opinions of men of the largest fields of observation, of mature judgment, undoubted professional attainments, and of unimpeachable integrity.

First. Does vaccine virus, or lymph, degenerate or lose any appreciable power of protection against small pox by successive transmissions through the human body? Must we, in order to prevent degeneration of vaccine virus, resort to that from the cows?

This, gentlemen, is no new question. It was pro-

pounded to Jenner when vaccination was an infant; indeed, it is so old that it has long since reached the age of three score years and ten allotted to man for his earthly pilgrimage. When propounded to Jenner, he said he did not think it would, but, with the love of fairness and truth which was so interwoven into the frame of this noble and self-sacrificing man, he added time alone could determine. Sufficient time, in all conscience sake, has elapsed, and let us answer the question, remembering that "truth will always be more confirmed and extended by a conscientious indication of those points which are hypothetical." The advocates of the affirmative side of this question have erected a magnificent temple at which they worship, and proudly claim the homage of all our race. Upon what foundation does this imposing edifice rest, that it should challenge the allegiance of our noble profession? Surely its foundations must be laid upon the everlasting rock of truth. Alas, an examination of it soon convinces the impartial student that it is builded alone on hypothesis. The mere assertion, no matter who makes it, that humanized virus degenerates by successive transmission through the body of man, is not worth the breath consumed in uttering it. If the facts be asked for to prove the degeneration theory, they will say humanized virus must have degenerated for the reason that vaccination is not as protective against small pox as in Jenner's day. One of the most zealous advocates of these gentlemen, says: "Humanized virus had succeeded admirably in its protective power, possibly as long as Jenner lived—that is, as long as 1824, when his death took place; but soon after that, until the present date, it had been alleged that the virus was

weaker in its power of forming a good scab and in protective powers, than it was in 1800. A writer in the *Encyclopedia Britannica*, cited by Dr. Cameron, at Dublin, had shown that even as late as from 1818 to 1823, the mortality of vaccinated persons, when attacked with small pox, was only 1 in 330, that in non-vaccination, 1 in 5; but in the last epidemic in London (1870–'79), no less than 1 in 10 of all vaccinated attacked had died, although, too, the number of insertions now a days was far greater than in Jenner's day. Dr. Walmut and Dr. Henry Martin, on the other hand, claimed for animal vaccination, direct from the calf, an even better preservative power against small pox than the early records of the century showed the Jennerian lymph to possess, and so did Mr. Babcock and Mr. Ceely with respect to their lymph." These most remarkable, and, to the speaker's mind, conclusive proofs, were brought to the attention of Medical Society of London by their author, Dr. Drysdale, November 7th, 1881. But, let us see if the vesicles of Jennerian vaccination have the same character now as in Jenner's day. Dr. Drysdale says: "For twenty-five years this virus succeeded admirably." In these twenty-five years this virus had been successively transmitted through, at the least possible number, twenty-five thousand persons, and if the virus could be transmitted through this number of persons, and "had succeeded admirably in retaining its protective power," it is, to say the least of it, rather strange, that with proper choice of subjects, and with careful vaccinators to do the work, it should not be as fully protective at the end of a million such transmissions. This proposition is sustained by many of the most competent observers,

who had seen the vaccine vesicles produced by vaccinations made by Jenner, and who, having examined the vesicles produced by this same stock after fifty years of such transmissions, were compelled to admit that they could not detect the slightest difference, either in the course or character of such vesicles. Jenner, after twenty years of close observation of the subject, declared that the deterioration theory was groundless; he, however, insisted upon a proper selection of subjects from which vaccine virus was to be propagated. In this respect he said: "The matter may undergo a change that may render it unfit for further use by passing even from one individual to another," and this was as likely to happen in the first year as in the twentieth; but that, with proper care and attention lymph underwent no change, was proved, he claimed, by the fact that the vesicles he was then producing were, "in every respect, as perfect and correct in size, shape, color, state of the lymph, the period of the appearance and disappearance of the areola, its tint, and finally, the compact texture of the scab, as they were in the first year of vaccination; and, to the best of my knowledge, the matter from which they are derived was that taken from the cow sixteen years ago." In 1858, Dr. Steele, the teacher of vaccination in Liverpool, said the lymph he was then using was obtained from Jenner himself, and the vesicles were precisely the same as those obtained by Jenner. Dr. Marson, one of the most distinguished men in England, in this special department, says, after intimating that the degeneration theory was true: "We feel bound, however, to state, we have frequently produced, lately, with lymph brought into use by Jenner

more than fifty years since, vaccine vesicles which, on comparison, exactly correspond with the vesicles sketched in Jenner's original work explaining and illustrating the vaccine disease."

In the January number, 1880, of the *London Practitioner*, Dr. Henry Stevens, of the medical department of the local government board, after saying he had examined the arms of more vaccinated children than any man alive, or who ever lived, says: "I can positively state that, examining dozens of recently vaccinated children every day of my life, and that during a long series of years, I find no ground whatever for the suspicion that the present arm-to-arm lymph has lost its true and original Jennerian character. I do not believe that our arm-to-arm lymph affords any less protection than it ever did." He further says: "It was my duty to examine into nearly all complaints, of the untoward results of vaccination, and can state most positively that I never found, in any single instance, any ground whatever for these allegations against vaccination."

Seaton says: "In 1862, the vesicles of this Jennerian vaccination were compared, side by side with Ceely's vesicles, which were obtained from the virus taken only six years before from the cow, and notwithstanding the Jennerian virus was fifty years in use, not the slightest difference could be detected. The lymph now in use throughout the stations of the national vaccine establishment (England) is, if not exclusively, nearly all of Jenner's original stock, and from daily opportunities of observation, I can affirm that it has not lost anything of its infective power, and that the vesicles produced by it corres-

pond accurately in their character, and course with Jenners description. Other stocks have, at times, been introduced into use at the establishment, but they were found to present no advantages, and it was not, therefore felt necessary to take any particular measures to maintain them."

Dr. Simon, chief medical officer of the Privy Council of England says: "Strange notions appear to be entertained abroad, and I have seen, I think, similar statements made even in this country, that lymph has only been kept alive and in a state of energy in England by renewals from the cow, that typical vesicles are only seen in consequence of such renewals. But this is a very erroneous notion. The lymph chiefly in use throughout England is establishment lymph, which is mainly Jenner's lymph. Ceely, who has more knowledge of the cow pox in the cow, and the effects of cow-lymph on the human subject, than any other man in England, was requested by the medical department of the Privy Council, in 1862, to inspect all the stations from which lymph was contributed to the establishment. He says he 'met with abundant evidence of the perfectly satisfactory character of the lymph in use.'"

Dr. Seaton, Medical Inspector of the Privy Council of England, says: "During the last eight years I have examined the vaccine cicatrices on the arms of more than one hundred thousand persons, of all ages, but chiefly children in schools. Taking the results generally, I have not found them by any means indicative of progressive deterioration in the character of the vaccine scar. And taking particular districts which had good vaccinators, men who knew their work thoroughly well, and who did

it with lymph got originally from the establishment, *i. e.*, with lymph of Jenner's stock, I have found the marks corresponding exactly to Willan's delineation, and in no respects inferior to cicatrices which I have seen on the arms of persons vaccinated by Jenner himself, or by his well known contemporary, Dr. Walker."

By reference to *New York Medical Record*, April 8th, 1882, page 391, it will be seen that Dr. E. M. Snow, superintendent of the Board of Health, Providence, Rhode Island, said: "He had used humanized vaccine virus in about twenty-six thousand cases. This virus had undoubtedly been transmitted from arm to arm since the time of Jenner. The local and constitutional effects of this virus are precisely the same from day to day, as those described by Jenner. In regard to the protection from small pox given by the humanized virous, it is absolutely perfect."

So much for appearances. What has the test of inoculation after vaccination demonstrated? At the hands of Dr. Gilham of the national vaccine establishment a number of children were vaccinated from bovine virus of Estlin's stock, and an equal number with Jenner's stock. These children were afterwards inoculated with the virus of small pox, and every one of both series failed to take small pox.

I do not intend to trespass upon your time and patience by quoting statistics to prove the test of experience of resistance of small pox after vaccination with the so-called degenerated Jennerian virus. This I could do to an extent one hundred times greater than those of Dr. Drysdale, and from the records of all civilized countries. I

quote but one authority on this point, and certainly he is not the champion of Jennerian vaccination. To the contrary he is the chief apostle of the cause of bovine virus in America *i. e.*, Dr. Henry A. Martin, of Boston, Massachusetts. This gentleman, in *North American Review*, April, 1882, says: "It is now nearly forty years since I began the study of medicine. During my entire professional life, I have paid very unusual attention to the study of vaccination, and have had, both in civil and military life, very great and continued opportunity to pursue this study. In the army I had, as surgeon in charge of hospitals, and as medical director, extraordinary facilities for the observation of the protective effect of vaccination in large bodies of troops, and in three large towns, and rapidly accomplished in each of the latter the "stamping out" of an epidemic of small pox which had raged with increasing extent and mortality for over a year. I had almost continuously under my direction, large, sometimes very large, numbers of cases of small pox. In civil life I have devoted quite exceptional attention to the practice of vaccination, having in one year made more than eleven thousand vaccinations. For nearly twenty-five years I have made a specialty of propagating and issuing to the profession the best attainable vaccine virus. In pursuance of this enterprise, about twelve years since, I introduced into America the method of true animal vaccination, and for nearly nine years I have practised that method exclusively. This specialty necessitated a vast number of vaccinations of infants, and a daily, hourly attendance on these during their whole course. As a result of all this exceptional opportunity to form a deliberate

and accurate opinion of vaccination, I wish to say with as much solemn earnestness as if it were my last earthly utterance, that I have never known among those whom I have vaccinated, a single case of small pox in any form or modification, except a certain limited number into whose systems the germs of the disease had entered before the time of vaccination, making itself known within fourteen days after the operation."

Although having a princely revenue of late from the sale of bovine virus, this gentleman does not show, in the learned and manly article in the *North American Review*, or anywhere else that I have seen, one single proof of the superior protective power of bovine over Jennerian vaccination. Indeed, what greater laudation of the continued efficiency of Jennerian vaccination would it be possible for any human being to utter than the testimony of Dr. Martin, that he had practised Jennerian vaccination for thirty-one years, in the midst of small pox epidemics, in civil and military life; had not only jugulated these epidemics with this now so-called deteriorated virus, but greater still, that not one of the thousands upon thousands of persons so vaccinated by him ever took the disease to his knowledge.

This testimony of the continued and undoubted efficacy of Jennerian vaccination is rendered doubly valuable when it is known that in 1870, Dr. Martin, (in *Boston Medical and Surgical Journal*, October 20th), says the humanized virus with which he accomplished such marvellous results was a continued propagation of "the excellent stock of the National Vaccine Institution, of London, which I have supplied for so many years." This is the testimony

of the distinguished gentleman after this virus had been successively transmitted through the human system for seventy-four years—the virus furnished by the National Vaccine Institution of England being from that first started in use by the hand of Jenner, in 1796.

Considering the fact that this gentleman has a great commercial interest in the propagation and sale of bovine virus—his time being almost wholly engaged in its propation and sale—it required a true and honorable man to state the whole truth in the matter. This Dr. Martin has nobly and unflinchingly done.

Dr. Martin has used humanized virus for thirty-one years, and certainly shows no degeneration in this long time of successive transmissions. His experience in the use of bovine virus has been on an extended scale, only nine years. Not until twenty-two more years shall have elapsed can he, upon the facts of his own experience, testify to even an equal efficiency of bovine virus.

One more thought on this line. By what process of argument from reason or analogy are we to be convinced that if vaccine virus degenerates by successive transmissions through the human system, that a like degeneration will not take place by bovine virus passing through the cow by successive transmissions. The bovine virus in use in this country is propagated by successive transmissions through the system of the cow, and this has, according to Dr. Martin's statement, gone through five thousand such transmissions. This query must have presented itself to Dr. Ceely, of England, who is so thoroughly posted on bovine virus, for he says: "My own repeated applications to the cow for lymph have been

chiefly for the purpose of experiment, for the satisfaction of patients, or accommodation of friends, not from any belief in its superior efficacy over active humanized virus."

Dr. Simon has gone to the core of the degeneration hypothesis when he says: "Lively arguments for the necessary degeneration of the vaccine contagion have proceeded on a belief that the original cow pox, at each vaccination, simply dilutes itself with certain passive juices of the vaccinated body, that it thus, of course, gets weaker and weaker, at every stage, till at its thirty-fifth succession it is reduced according to Dr. Nicolai—to at least the 8,809,458,688th fraction of its original power. This argument founds itself on a radical misapprehension of the infective process in question. What essentially marks the infective action of cow pox, small pox, and similar morbid poisons is, that under their fermentative influence some ingredient of the infected body converts itself into their likeness. The material contained within certain vaccine vesicles is not a something which has been transfused into the body, but a something which has been generated within it by a specific decomposition of its own proper substance; and the original lymph, which acted as a ferment to this process, has very probably completed its decay, and altogether passed from the scene before those new vesicles begin to show themselves. Successive dynamical infections do not imply a perpetuation (with corresponding infinitesimal subdivision) of the original efficient; or Nicolai's argument might equally have been used to prove that the power of human procreation could not but cease soon after the days of Adam."

Let us now consider the second objection to humanized

virus, *i. e.*, transmission of diseases, such as syphilis, scrofula, consumption, etc. This is a weighty and momentous objection, if it can be demonstrated by reliable investigation that either of these diseases occurs frequently as the result of vaccination. In the discussion of this question, I shall deal almost exclusively with the production of vaccinal syphilis, as this is the great bugbear used to prejudice the populace against vaccination.* Not a single instance has ever been shown where scrofula or consumption was ever caused by vaccination. When such a case is found, it will be proper to discuss this question. We are told by vacciniphobists, that syphilis has been thus transmitted to thousands upon thousands of persons. Indeed, if one listened to their insane delusions, he would imagine that our race is but a seething mass of syphilitic putridity, caused by a horrid little operation called vaccination. It does seem that these deluded dwellers in "Fool's Paradise," are ready to make any sort of statements to sustain their opposition to this measure, and the more improbable and untruthful the statement the louder they proclaim it. The charge of such transmission is as old as that of degeneration of lymph. The medical literature of every civilized nation has been ransacked for the purpose of determining the question, and the enormous number of about two hundred and sixty-

*It would be both entertaining and instructive to enter into an elaborate discussion of the inoculability of tubercle, did the occasion permit. To fully discuss the enormous and able experiments to inoculate tubercle from animal to animal, and from man to animal, by such men as Villemin, Viscar, Klebs, Zurn, Bollinger, Leisering, Chauvau, Bagg, Semner, Guenther, Harms, Biffi, Virgad, Gerlach, Buhl, Tilbury Fox, Burdon Sanderson, and others, would swell this paper beyond all propriety.

three cases of vaccinal syphilis was the sum total of all this stupenduous evil. The cases were fully investigated, and some of the facts will be detailed.

M. Briquet, appropriately says: "A competent observer and a complete observation, reported with such details as render the statements capable of being checked by the reader, are indispensable requisites for establishing the reality of an ordinary fact in medicine; and if for establishing an ordinary fact, how much more when the facts alleged are confessedly so rare, and so contrary to all previous experience, as these must be admitted to be." To correctly investigate the question of vaccinal syphilis, we must first determine the question of inoculation of the lesions of secondary syphilis. Experiments by competent observers, have demonstrated that condylomata, ulcerated tubercles, psydracious pustules, pustules of ecthyma, pustules of acne, mucous patches, and the blood of syphilitic subjects, may be inoculated into the constitution of the person not already infected with syphilis. Now, it is an admitted principle in the teachings of syphilography, that the secretions from pathological lesions, not themselves syphilitic, although occurring upon the bodies of syphilitic persons, do not contain the virus of syphilis, unless admixed with blood. Gonorrhœa, upon a syphilitic patient, reproduces gonorrhœa by innoculation, and not syphilis; and the same is true of chancroid. All of these lesions of secondary syphilis, except the blood, may be elimiated from this discussion, for I cannot imagine how any other of them could contaminate vaccine matter in its rational propagation.

Is the effort to inoculate a healthy person with syphilitic

blood invariably successful; and if not, what proportion of success will attend these efforts? The following presents the results of all such efforts to be found detailed in the most authoritative work upon syphilis:

NAME OF EXPERIMENTER.	Number of Inoculations.	With Success.	Without Success.
Anonymous Surgeon of the Palatine...	9	3	6
Waller.....	1	1	...
Gilbert.....	1	1	...
Pellizzari.....	5	1	4
Lindwurm.....	1	1	...
Thiry.....	4	...	4
Lalagade.....	3	...	3
Diday.....	20	...	20
Total.....	44	7	37

Thus, gentlemen, we see that where intelligent physicians, bold enough to test the matter, after deliberately and carefully endeavoring to produce syphilitic infection by inoculating healthy subjects with syphilitic blood, failed in 84 per cent. of all such efforts. Only those efforts were successful where, as by Pellizzari, the Anonymous Surgeon of the Palatine, Waller, and others, large surfaces were denuded, and syphilitic blood in large quantities kept for many hours to the denuded spots.

It is, of course, impossible in this discussion to enter into an extended or minute examination of the cases of alleged transmission of syphilis by vaccination. The following embraces nearly, if not the entire list of reporters

of vaccinal syphilis, as given in the best works upon syphilis, *i. e.:*

NAME OF REPORTER.	Number Vaccinated	Number Infected	Number not Infect'd
Cerioli	46	40	6
Tassini	64	46	18
Surgeon B	24	19	5
Hubner	13	8	5
Monell	1	1	...
Marcolini	40	40	...
Viaini	2	2	...
Lecoq	2	2	...
Galligo	14	14	...
At Rivalta	63	46	17
Trosseau	5	4	1
Marone	34	34	...
Devergie	1	1	...
Chassaignac	1	1	...
Herard	1	1	...
Adelasio	2	2	...
Hutchinson	15	2	13
Totals	328	263	65

It is absolutely necessary, in an "investigation of alleged cases of vaccinal syphilis, to ascertain (1) whether we are really dealing with syphilis; (2) whether, if this be so, the syphilis is not hereditary, and a mere coincidence or evolution of vaccination; (3) whether, if it be acquired syphilis, this has not some other origin, unconnected with vaccination, or attempt to vaccinate; (4) whether, if the

acquisition of syphilis be reasonably traceable to vaccination, or attempted vaccination, there is evidence, direct or presumable, that the so-called vaccination had been done from a genuine vaccine vesicle, and that the products of that vesicle had not been mixed with some of the inoculable products of syphilis. Not till all this was settled, would any question arise about admixture of blood. The interest and importance, after all, of the cases in which vaccination is alleged to have communicated something besides its own infection, turn entirely upon whether the vaccination had been performed with unmixed lymph of genuine vesicles—vesicles about which no competent person would make a mistake." Take these fair and rational premises, and I challenge the production of one single case of vaccinal syphilis. Enter into a minute examination of the cases of alleged vaccinal syphilis, above listed, and you will find that the reports of many of them were made upon hearsay testimony, and unaccompanied by a critical and minute examination of all the attendant facts and circumstances, the history given of them was of the most imperfect and unreliable nature—in some instances, not having been written until six or more years after they were said to have occurred, and, in the majority of them, it was not even demonstrated, or claimed, that the vaccinifers had syphilis at the time the virus was taken from them. Furthermore, when examined by expert, reliable, prudent and truthful physicians,—and every such case has been so examined,—they were pronounced wholly unproven. And, with the exception of Hutchinson's cases, the profession of medicine, almost to a unit, declared they were unproven to be consequent upon sensible or legiti-

mate vaccination. The man who can read Hutchinson's report of cases of vaccinal syphilis, and find proof to convince himself that they were consequent upon infection of vaccine virus, is exceedingly anxious to be so convinced.

In contrast to these cases of alleged transmission of syphilis by vaccination, the following, a few of quite a number of cases are cited, in which physicians of the highest professional standing took as vaccinifers, persons known to be syphilitic at the time, and from them vaccinated a number of persons knows not to be syphilitic, and failed to develop the slightest manifestation of syphilis in any one of the persons so vaccinated.

NAME OF EXPERIMENTER.	No. of Vaccinations.	No. Infected with Syphilis.	No. not Infected with Syphilis.
Bidard	6	0	6
Mountain	30	0	30
Schreirer	2	0	2
Jonkoffsky	57	0	57
Delzenne	9	0	9
Bourguel	20	0	20
Guerin	55	0	55
	170	0	170

To these must be added the numerous experiments of Boeck, Cullerier, Taupin and Heyman. Boeck experimented on a large number of cases, and he took great care to mix the blood of the vaccinifer with the vaccine lymph. Here we have a record of three hundred or more, direct efforts to produce vaccinal syphilis, and every such

effort was unsuccessful. These experiments are a thousand fold more valuable than the details of cases of alleged vaccinal syphilis, for they were conducted under intelligent supervision, and in accordance with conditions which were carefully observed; from these experiments the experimenters could, and did know that the vaccinifers were syphilitic; that the lymph of a genuine vaccine vesicle was used, and if or not, it was admixed with syphilitic blood, or other inoculable matter. Remember in comparing these data that the reports of cases of alleged vaccinal syphilis were wanting in every one of these essestial points of observation; they were entirely accidental, and were not expected to occur. Dr. Vennois, of Lyons made an exhaustive investigation of vaccinal syphilis, and as the result of his labors said: "There is no infectious quality in the vaccine matter itself; and if we employ the vaccinal fluid only in inoculating a healthy child, the operation will be safe. If the vaccine matter taken from a syphilitic subject is without any admixture of blood, the result will be a vaccinal pustule only, without any syphilitic complications, either immediate or future." This, gentlemen, is the teaching of the profession of medicine in all countries at the present day. That some few persons have been infected with syphilis by persons attempting to vaccinate them, no one is ready to deny, but when such results followed they were inoculations with syphilitic blood, or virus—not vaccine virus. When such results followed they were almost invariably caused by the grossest disregard of the dictates of common sense or cleanliness. No physician, except for experiment, should ever vaccinate any person to serve as a

vaccinifer, unless such person be in undoubtedly good health, and known to be free from scrofula, consumption or syphilis. This proposition is reasonable, and therefore right.

Call the attention of vacciniphobists to the fact that vaccinal syphilis has been so rarely pointed out, and they will say the profession of medicine is a body of blind worshippers over the grave of Jenner, and has never tried to ascertain the truth of the matter. Let us see if this be true. In 1856, fifty-eight years after vaccination had been generally practised, the Board of Health of London issued a circular letter addressed to the various governments, asking information in relation to vaccination and its results. This Board propounded the following searching question, among many others: "Third. Have you any reason to believe, or suspect, that lymph from a true Jennerian vesicle, has ever been a vehicle of syphilitic, scrofulous or other constitutional infection to the vaccinated person; or that unintentional inoculation with some other disease, instead of the proposed vaccination, has occurred in the hands of a duly educated medical practitioner?"

The Imperial Society of Surgeons at Vienna, Austria, replied: "Although it may be maintained that the blood of individuals affected with secondary syphilis can serve as a vehicle for this specific contagion, even this theory (if it could be proved) would not exercise any influence on the practice of vaccination; for both experiments, made on purpose (Hiem) and accidental vaccinations, have taught that without considering the quality of the vaccine lymph, that taken from syphilitic subjects may have been

used upon healthy persons, and the contrary, viz., from healthy individuals and used upon persons suffering from syphilis, without, on such occasions, the latter disease having been conveyed with the cow pox. What has here been proved in reference to syphilis may be applied equally to all other dyscrasic diseases, since this even, in cases of direct vaccination with their morbid products, have always shown a negative result."

The Faculty of Medicine at Prague replied: "The experience obtained in this country gives no grounds which lead either to the belief or presumption that the consequence to a vaccinated person can be such as put forth in this question."

The Imperial General Hospital of Vienna replied in like manner with the Faculty of Medicine at Prague.

The Imperial Lying-in and Foundling Hospital replied: "A true vaccine pustule cannot become the vehicle for conveyance of syphilitic or any other contagion."

From Bavaria the following reply was given: "In Bavaria up to the present time, two cases have happened of syphilis being inoculated with vaccinia. That was, however, in each of those cases the fault of the vaccinating physicians themselves; and the accident could in either case easily have been avoided, since syphilis was unmistakably present in the children from whom the lymph was taken. The inoculation of syphilis can at all times be avoided by an observant surgeon who uses due circumspection in choosing the subject from whom he will take lymph for vaccination."

The answer from Denmark was as follows: "The experience which we have acquired in this country does not

lead to the supposition that lymph taken from true vaccine can be the means of communicating any scrofulous or constitutional contagion."

The Duchies of Holstein and Lauenburg said: "The experience which has been gained in the Duchies of Holstein and Lauenburg requires an answer to this question unconditionally in the negative."

The same question was propounded to every prominent physician and surgeon in Great Britain, including physicians and surgeons in charge of all the vast hospitals and public charities and vaccine stations, and no one of them failed to answer it in the negative.

Dr. John Simon, Chief Medical Officer of the Privy Council, examined thoroughly and exhaustively all the alleged cases of vaccinal syphilis, and in his report for 1869, says but fourteen of all these alleged cases were to be attributed to vaccination, and every one of these fourteen cases were, he says, the result of malpractice on the part of the vaccinator. "If," says Simon, "our ordinary current vaccination propagates syphilis, where is the syphilis it propagates? Who sees it? The experience of this department is an entire blank upon the subject. For the last ten years we have been in incessant intimate communication with the different parts of England on details of public vaccination, and during these ten years every one of about 3,500 vaccination districts into which England is divided has been visited three or four times by an inspector specially charged with the duty of minutely investigating the local practice of vaccination; yet, from this systematic and extremely detailed search for all that has to be said on the subject of vaccination in England,

no inspector has ever reported any local accusation or suspicion that a vaccinator had communicated syphilis."

In North Germany, so late as 1873, the testimony has been given that only two cases of alleged vaccinal syphilis have occurred during twelve millions of vaccinations made there up to that date. The cases of alleged vaccinal syphilis have, I think, been conclusively proven to be cases of inoculation with syphilitic blood, or matter from foul instruments, and are in no wise chargeable to vaccination properly performed. Syphilographers—those men who are most highly accomplished in the study of the causes and sources of syphilis—have almost unanimously declared that the alleged cases of vaccinal syphilis were but inoculations with syphilitic products, and such results will never follow vaccination, even from a syphilitic subject, if lymph from a genuine vaccine vesicle be used. Venereal specialists, such as Lancereaux, Cullerier, Ricord, Laugston Parker, Acton, Lee, Bumstead, Hammond and Keys, never, in the whole course of their vast experiences, met with a single instance of vaccinal syphilis. But let it be admitted (in order that there may be some ground for the discussion) that every one of these cases of alleged vaccinal syphilis reported above were consequent upon vaccination duly and intelligently performed, even this would not detract one iota of the value of vaccination—the grandest discovery which has ever yet blessed man in his checkered career upon earth. Vaccination is saving at least one million human lives every year, and if syphilis is actually proven to have occurred one time in a million vaccinations, is not all this fuss about vaccinal syphilis the old story of the mountain in labor bringing forth a mouse?

But I have recently heard intelligent physicians say that if one case of syphilis is proven to have followed vacination then humanized virus should never be used. Gentlemen, this is serious ground, and if applied with the same rigor to the other branches of our profession the practice of surgery, of gynecology, of obstetrics and dentistry must be abandoned. And if applied to man in all his surroundings with the same rigor, he must live on air, for syphilis has been frequently caused by the necessary processes of eating food and drinking water. Further than this, if a few cases of syphilis contracted in any manner, is to doom all things from which they were contracted, to be banished from use by man, then our race must be content with the covering of skin placed upon him as he sprang from the hands of his Maker, for syphilis has been caused repeatedly by infected clothing. Let us take the simple process of cupping to forcibly illustrate this proposition. It is a well established fact that an epidemic of syphilis was produced at Brun, in Moravia, in 1577, by cuppings done by the bath man of the town. Horst observed cases of the same nature at Bamberg in 1602; Sneizer, at Ulm, in 1662; Wideman, at Windshelton, in 1620—in the latter instance seventy cases of syphilis were caused by the simple process of cupping. I presume if you make an effort to banish cupping because of these unnecessary yet unfortunate results, my friend, Dr. Campbell, will make what is generally known as a racket. Catheterism of the Eustachian tube is a very delicate yet harmless operation, and certainly syphilis is not a necessary consequence of its performance, yet a number of cases of syphilis from this source have been established—

as many as thirteen such cases having been reported at one meeting of the Medical Society of Hospitals in France. The operations of circumcision, catheterism of the bladder, uterine examinations, accouchment, removal and transplanting of teeth, the lancing of a furuncle, have caused numbers of cases of syphilis, and if the rule sought to be applied to vaccination be invoked against these operations, then their performance is criminal. Even the forks and spoons, and drinking cups and tumblers have caused large numbers of cases of syphilis, and yet who is ready to abandon the use of these articles, because some fellow with a syphilitic mucous patch in his mouth used them, and a careless and filthy butler placed them back upon the table without cleaning, and syphilitic infection followed. Again it has been shown, upon as reliable testimony as vaccinal syphilis, that wearing apparel and bedding used by a syphilitic person and afterwards used by a careless or filthy son of Adam, has caused syphilis; but I think the day is far distant ere this clothes-worshipping and bed-loving people will abandon these comforts because a few cases of syphilis have followed their use. These cases are all due the same causes, *i. e.*, gross and inexcusable carelessness or filthiness. That these cases have occurred are beyond question, and have produced ten times as many cases of syphilis as vaccination. The kiss of the lover has caused, by reason of mucous patches on the tongue, more syphilis than every one of the alleged cases of vaccinal syphilis. How often, Mr. President, do we meet with cases where, in consequence of ill health of the mother, or of insufficiency or total absence of flow of milk, a wet nurse is necessary to furnish food for the infant. There is

scarcely a month but what the busy practitioner meets with such cases. Now, it is well known that syphilis has been caused in a vast number of infants by infection from syphilitic nurses. And yet because these unfortunate results are found, are we to forego the advantages of wet nursing and thereby consign such children to the grave, by resorting to cow's milk or other more indigestible nourishment? Should we not display more prudence and judgment in selecting wet nurses? Why, gentlemen, notwithstanding all this fuss about vaccinal syphilis, the proverbial and much abused privy-seat has caused, if the statements of many responsible and honorable citizens are to be received as true, ten times as many cases of syphilis as are numbered in the list of cases of alleged vaccinal syphilis, for scarcely a month passes but what some one of this class of gentlemen enters the office of either of us and will confess with much evidence of shame that he wishes to be treated for syphilis—at the same time impressing upon the attention of the physician that that which mortifies him most is, that after a life of sedulous avoidance of illicit sexual indulgence, he had had the misfortune to contract the horrid disease from a privy-seat. The observations quoted establishes, I think, with unerring certainty the fact that man, in submitting to Jennerian vaccination, incurs no greater risk of contracting syphilis than he does in submitting to the harmless minor operations of surgery, or in eating food or drinking water. Many of our professional bretheren have admitted these facts, yet say vaccinophobists have done, and are doing, much to prejudice the people against vaccination by appealing to their fears upon these subjects, and if we will

abandon Jennerian vaccination and use bovine virus, we take from the enemies of this measure the only weapon possessed by them.

For myself, I think it unmanly, and derogatory to the dignity of an honorable profession, to throw a huge tub of concession to these minnows who swim only in the shallow and dirty waters of ignorance or prejudice. Make but one concession to them, and the next demand will be for the abandonment of vaccination; indeed, encouraged by the halting attitude of our profession, they are already loudly making this demand. Nothing but scorn and contempt should be visited upon the few blatant enemies of vaccination, who go about the country enjoying the benefits of a measure which they never tire of talking against, and filling the mail bags of the whole country with the most unseemly and untruthful statements of its dangers and evils. Some of our brethren have mistaken the remedy to be applied to these vaccinophobists and their influence. The remedy is to be found in educating the people upon these vital questions—not concessions to men who, on this subject, are as insane as any monomaniac in our insane asylum. To them, argument is unavailing; facts of the most undeniable character, but sounding brass and tinkling cymbals. Ephraim is joined to his idols, let him alone until the inexorable hand of death shall rid the earth of his presence.

From the evidence of the ablest men in our profession, above quoted, it must be seen, (1) that the charge of degeneration of virus of Jennerian vaccination, under due and intelligent propagation, has not a single fact to bolster it up, but remains, at the present time, as when made 84 years ago—a mere hypothesis; (2) that the charge of

transmission of syphilis, etc., has been most grossly exaggerated,—indeed, not a single case can be cited where any such disease has been caused by vaccination with unmixed lymph of a true Jennerian vaccine vesicle.

If these propositions have been proven, why are the physicians of the States so ready to abandon Jennerian vaccination and attempt to find in bovine virus a panacea for all the mythical woes and ills of the former method. Although, possibly, in the minority, I affirm that humanized has far higher claims upon our profession than bovine virus, and I am ready to give the reasons for the faith that is in me:

1ST. It is all important, when patients apply for vaccination, that virus of such reliability shall be used that one vaccination will insure prompt and complete infection of the subject. This can be secured in using humanized virus. Bovine virus fails of such success in from ten to fifty per cent. of all such efforts. Dr. Marson says: "With good lymph (Jennerian) and the observance of all proper precautions, an expert vaccinator should not fail of success in his attempts to vaccinate above once in one hundred and fifty times." He obtained greater success in his vaccinations at Blackfriar's Station, England, in 1863, having vaccinated 1,479 persons with but three failures.

At the Birmingham Station, in 1864, 1,000 vaccinations were made, and but three failed of success. In 1865, at this station, there were 1,068 vaccinations, without one failure. Dr. Sheppard, at the Bristol Station, made 2,000 vaccinations, and every one was successful.

Dr. Seaton shows that at various stations of the Vaccine Establishment of England, the failures amounted to 1 in

170 operations. These observations are upon a large number of vaccinations, and extending over a series of years. What rate of success will attend our efforts to vaccinate with bovine virus? Dr. Martin, of Boston, at a meeting of the Medical Society of London, November, 1881, said: "When time enough was taken, the animal lymph almost always took in vaccination, and in 73 per cent. of revaccination." In this gentleman's last circular of instruction, in relation to use of bovine virus, he says: "If the albumen on the points is not dissolved, and fully applied to the incised surfaces, vaccination will often be futile, however fresh and vigorous the virus. A perfect illustration of this is the fact that some of Dr. Martin's correspondents have had more or less virus from almost every heifer vaccinated since 1870, and have never reported a failure, while others (generally elderly physicians, who often seem to feel insulted at any attempt at instruction), who returned points, indicate an utter failure to dissolve the virus, are continually reporting ill success; and, it is to be feared, always will." This last sentence is quite decidedly cool, to put it mildly, in the face of Dr. Martin's own experience with bovine virus in 1870. At that date his virus was certainly much nearer in removes from the original stock than after these twelve years of transmission through the cow; notwithstanding this fact, Dr. Martin, in October number of *Boston Medical and Surgical Journal*, 1870, page 255, says, of his experience in use of bovine virus: "My vaccinations of infants, made with the original lymph, are successful to a degree fully equal to what I had hoped, and much beyond my anticipations, *in view of the well known difficulty of communicating original cow pox to the human subject.*"

Stronger than this, is the fact that Beaugency lymph, when first used, in the hands of DuPaul, failed twelve times out of thirteen. This last statement was made in 1873, by Dr. E. L. Griffin, of Fondulac, Wisconsin. As is well known, Dr. Griffin is one of the best known physicians in Wisconsin, and as a propagator of bovine virus in this country, has a higher endorsement from special inspectors sent by National Board of Health, to inspect the various vaccine farms, than any one of them, without exception. This gentleman (Dr. Griffin) says: "Cow pox virus is not readily absorbed into the human system. * * * My average of failures is about 2 in 10, and I am well satisfied with that result."—(*Northwestern Medical and Surgical Journal, November*, 1873). Dr. Griffin's original stock of lymph, is from the Beaugency stock. Dr. Martin says his original supplies are from the following sources: "1st. The original cow pox, discovered at Beaugency, in 1866, perfectly authenticated, and, since then, transmitted from heifer to heifer in unimpaired, and even increased, excellence. This virus, when obtained by Dr. Martin, was the 258th, 259th and 260th of the series from the Beaugency cow. 2d. The cow pox obtained by inoculating a heifer from an original case of horse pox, and perpetuated from one animal to another in the same manner as the cow pox of Beaugency." (See *Boston Med. and Surg. Jour.*, Oct. 20, 1870, page 255).

"Dr. Ceely," who, Simon says, "has had more experience of cow pox in the cow, and the effects of cow pox in the human subject than any other man in England," failed of success in more than fifty per cent. in his attempts to vaccinate with primary cow lymph, taken from the vesi-

cles at a proper stage and possessing all the characteristics of perfection; the same individuals were immediately afterwards successfuly vaccinated with the current Jennerian virus of the National Vaccine Establishment. Ceely is certainly as competent a vaccinator as Dr. Martin, or any of his correspondents. Of all the men who have given deep and profound study to the subject of cow pox, both spontaneous and artificial, in the cow, that man is Ceely. The love of labor in this field, on the part of this man has known no bounds, and the history of cow pox in all its phases and modes of propagation has been more richly and philosophically elucidated by his exhaustive study, and experiments than any man perhaps, who ever lived. His study and experiments of the subject have been nearly fifty years. Ceely regarded efforts to vaccinate the whole population with bovine virus impracticable, and said such efforts would fail of success.

The Paris Academie, after several years trial of bovine virus found that sixty per cent. was the highest rate of success obtained when all the most favorable conditions were observed. I think this first objection has been sustained by the best authorities in France, England and America. In this country, from the lips of the men propagating bovine virus, and having at present a prodigious revenue from its sale. The reason, in my judgment, for these failures of bovine virus (and I am now referring alone to that from the hands intelligent physicians, charged under their own daily personal supervision) has recently been given by inspectors of the National Board of Health, sent specially to examine bovine virus farms. Dr. Whitney reports to the National Board of

Health as follows: "The method of procedure in charging the points is as follows: The crusts which have formed over the patches are first removed, the patch is then squeezed between the blades of two pairs of long dressing, or polypus forceps, and as soon as the lymph commences to ooze out, the ivory points are charged on both sides. A patch has to be squeezed several times before it is exhausted, and it is impossible to prevent the admixture of a certain quantity of blood, as the clots which have formed in the small vessels of the granulation tissue are necessarily disturbed each time that they are squeezed.

* * * At Dr. Martin's farm, from 100 to 200 points are charged from each patch. At another farm (New England Vaccine Company), from 250 to 500 points are charged with virus from each patch." I leave it to your judgment to say how many of these points are charged with vaccine lymph, and how many serum of the blood. My experience with bovine virus has been anything but satisfactory. In 1872, having an appointment to vaccinate the poor of this city, I ordered from one of the best known propagators of bovine virus in this country, enough virus to vaccinate 100 persons, intending from these vaccinations to propagate the balance of the necessary lymph. I followed carefully the directions sent with these quills, yet not more than one in ten successful vaccinations followed their use. A like result followed the use of bovine virus in 1875. In each of these years I, upon a trial, vaccinated with humanized virus more than two hundred persons without a failure—primary vaccination.

In 1881 I ordered, for the physicians appointed to vac-

cinate the poor of this city, three separate supplies of bovine virus before I succeeded in getting a successful vaccination. The first two supplies were used by the vaccinating physicians and myself, and furnished to six of the most prominent physicians of this community. Every one using this virus was specially directed to use it according to directions sent therewith. With these supplies 200 persons were vaccinated, and not a successful vaccination was obtained. I then obtained fifty points from Dr. Martin, he having been highly recommended to me by my friend, Dr. Azel Ames, of Boston, and with these nearly twenty-five successful vaccinations were had. This furnished virus enough to begin the work, and with careful propagation, public vaccination was carried on, not, however, until a delay of six weeks, caused by unreliable bovine virus.

During the present year I obtained from Dr. Martin, through a reliable drug house of this city, about five hundred points of vaccine matter. Two hundred of these were distributed to the various physicians of this city and contiguous section of country. I gave each physician the circular of Dr. Martin, with a special request that the virus be used in strict accordance with his directions. I found that notwithstanding they carefully followed his directions, more than fifty per cent. failed to "take." In my own private practice I made two hundred primary vaccinations and was unsuccessful with fifty per cent. of my operations. Some of these unsuccessful cases were vaccinated a second time with success. Many second and some third repetitions of the operation were unsuccessful. In all cases of failure with bovine virus, where the parties

would submit to a repetition, I used humanized virus and succeeded in every effort. Visiting the city hall, where Drs. W. H. Foster and G. C. Dugas, City Physicians, were doing public vaccinations exclusively with bovine virus, (Dr. Martin's), I found daily reports of failures. In a number of persons so reporting I requested permission to use humanized virus and all such vaccinations were successful. I vaccinated more than a dozen persons successfully with humanized virus after that from the New England Vaccine Company had failed. Four of these had been twice unsuccessfully vaccinated with this virus.

My experience with bovine virus is not exceptional in this city. With but one exception I know of no physician here who was pleased with the use of bovine virus. The failures among the profession of Augusta were from ten to fifty per cent. Some of the most prominent, careful and painstaking physicians of this city had as large a per cent. of failures as the most humble and inexperienced ones.

Now, gentlemen, every fair minded man must admit that such failures work great detriment to the cause of vaccination. Persons being vaccinated and not successful many refuse to have the operation repeated; and where in some instances a third effort was necessary they declared positively that they would not submit to it. If, as Dr. Martin says, these numerous cases were due to the carelessness or incompetency of the physicians, it is at least unaccountable that with like carelessness and incompetency these same physicians were almost invariably successful in their efforts to vaccinate with humanized virus. During my professional life I have made more

than five thousand vaccinations, and want of success with humanized virus was a very rare exception, while with bovine virus want of success has been the rule—success the exception.

Another objection to bovine virus is the severe local disturbance attending the whole course of vaccination. In a vast majority of vaccinations with bovine virus, in my practice, whether on adult or child, the vaccinee complained of extreme soreness of the arm, many of them carrying the arm in a sling for days. The local inflammation, with resultant constitutional irritation was so severe upon infants that its use seemed nothing short of cruelty. With humanized virus this trouble was trifling, compared to that from bovine virus. The vaccine scab of bovine virus rarely falls before the fourth week, and when it falls it frequently leaves behind it a deep ulcer, reaching through the whole depth of the skin to the tissues beneath. Some of the foulest ulcers I ever saw followed the dropping of the vaccine scab. The local and constitutional disturbances attending some of them were so severe that poultices to ulcer, and morphine internally were required to allay the pain. Many families seeing these results positively refused to permit other unvaccinated members of the family (especially children), to undergo the operation.

Dr. Seaton says these unpleasant complications are frequently found to attend vaccinations with bovine virus in England.

The Beaugency virus—the parent stock of that used by the best propagators of bovine virus in this country—showed such severe local inflammatory results, even in

several removes through the human system, that M. Bosquet, after seeing such results advised a friend who was about to use it in his private practice, to wait until it had been further transmitted through the human system.

Estlin's stock of bovine virus which was put in circulation in England, in 1838, showed like results. The severity of local disturbances is no evidence of infection with cow pox, for some of the most unpleasant of such complications attended the whole course of spurious cow pox from this virus.

Erysipelas, complicating Jennerian vaccination, is held up as a huge bugbear to prejudice the people against vaccination with humanized virus. Many of the most intelligent members of our profession have regarded erysipelas accompanying vaccination to be due generally to: First. Lowered vitality, or vitiated condition of the constitution of the vaccinee. Second. To constitutional peculiarity of the subject—it being a well established fact that members of certain families have for generations, contracted or developed erysipelas from the slightest surgical operation or a trifling wound of the skin, caused by the scratch of a pin. Third. To what is known as an erysipelatous condition of the atmosphere—as when nearly all surgical operations, though widely separated, are complicated with erysipelas. Fourth. To contagion from an existing case of erysipelas.

Before supervention of erysipelas can be properly urged as an objection to vaccination with humanized virus, the objector must, by reliable facts, establish: First. That this disease follows vaccination more frequently than in minor surgical operations. Second. When this shall have been

demonstrated he must further show that it more frequently follows the use of humanized than bovine virus. What is the probability of the vaccinée from Jennerian virus taking erysipelas. Let Dr. Martin answer it. In *North American Review* he says: "It is also a fact that a form of erysipelas, almost always slight, but always annoying, and sometimes fatal, has been observed about once in five hundred vaccinations, as generally done and occasionally, even after the most careful performance of the operation with the best humanized." Minor surgery will certainly show a like result under similar conditions.

Dr. Martin readily establishes the second proposition for he has made a discovery on this line which must startle and amaze the credulity of even the most unsuspecting member of our profession. Dr. Lindsley says: "In 1877, he (Dr. Martin) publicly announced in the *Boston Medical and Surgical Journal* for February, that bovine virus was not only exempt from the risk of causing erysipelas, but that it was absolutely prophylactic of erysipelas. It protects from erysipelas." Gentlemen, it has been said that the proof of the pudding is in chewing the bag. You can test this pudding at any time you like; I have already done so, and observed others do the same thing. More than twenty-two cases of erysipelas developed during 2,000 vaccinations in the practice of four physicians of this city with bovine virus, obtained from Dr. Martin himself. Two of these cases occurred in my own practice, the others in the public vaccinations at the city hall, done by Drs. W. H. Foster, G. C. Dugas, and E. C. Goodrich, City Physicians. There was no erysipelatous condition of the atmosphere for wounds, and sur-

gical operations in my practice showed no such results, nor did those of any other surgeon of this city whom I consulted. The elements of contagion may be eliminated, for no two cases occurred in the same family or neighborhood. These were not "cases of erythema," but severe, undoubted erysipelas. The same development of erysipelas followed the use of bovine virus in other cities, as shown in late medical journals. I have always looked with charity upon vaccination as causative of erysipelas. I believe that one out of every 500 persons (Dr. Martin's table of erysipelas following Jennerian vaccination) would have taken erysipelas had the necessary abrasions for vaccination been made and not an iota of virus applied.

Another weighty objection to bovine virus is the frequence and development of spurious cow pox. I saw seventy cases of spurious vesicles in primary vaccinations. This spurious development looked like a split strawberry, the convex surface pointing upward. It would last ten or twelve days, exude a serous looking substance and rapidly degenerate into a thin scab, or an open sore. I have seen these strawberry-like excresences develop in even a second application of bovine virus. They were in no wise protective, if successful; revaccination is an evidence, for in every instance where the subject would permit revaccination, such persons developed typical vaccine vesicle. This is a very serious matter. I saw many persons who had bought "points" from druggists and vaccinated themselves and families, and in those suffering from these spurious developments they were congratulating themselves that they were now safe. More than a dozen such arms were shown me, accompanied with the question: "What do you think

of that for a take?" I demonstrated to their satisfaction that what they took to be a vaccine vesicle was wholly at variance with the typical ones which I gratuitously produced upon their arms by a second attempt at infection.

I am compelled, therefore, to regard the bill offered in Congress, by Mr. Smith, of Illinois, directing free distribution of pure virus to whoever applies for it, as one fraught with most calamitous results, insuring a spread of small pox over the country, and certain to bring intelligent and successful vaccination into unjust odium. Not one layman in a thousand knows a typical vaccine vesicle from a spurious one. Any sore, on the point of insertion of virus, is taken as undoubted evidence of successful vaccination, and the more irregular and painful the development on the arm, the more certain to them is the evidence that they have been fully infected with cow pox. Vaccination is a little, insignificant operation, it is true, yet none other, in the whole domain of surgery, holds within its grasp so much of life and death. It is one meriting the constant care and watchful eye of the intelligent and conscientious physician, and not to be relegated to the hands of ancient dames, little children, or charlatans. No physician, who performs this little operation, will have done his duty unless he has watched every one of them from the time of insertion of virus to the full development of the cicatrix. And if the least irregularity is observed at any time during the whole course of the disease, he is criminal who fails to test the former infection by reinserting the virus. Jenner, speaking of physicians, said: "A great number, perhaps a majority, of those who vaccinate, are not sufficiently acquainted with the nature of

the disease to enable them to discriminate with due accuracy between the perfect and imperfect pustule. This is a lesson not very difficult to learn, but unless it is learnt, to inoculate the cow pox is folly and presumption." Every intelligent and conscientious physician must heartily endorse these words. The due performance of vaccination, is not the scratching of the arm with a needle and rubbing in the virus, but the more important matter of knowing that such is followed by a typical vaccine vesicle. Let this lesson be fully impressed upon the people, and vaccination is impregnable against charges of failure to prevent small pox.

Again: I object to bovine virus because of the frequent retarded development of the vaccine vesicle. I have frequently seen ten days elapse from the time of insertion of virus to beginning of the vesicle; and often, sixteen days to full development of the vesicle. The misfortune and death which may result from this delay, must be but too evident to those of us who have had much experience in prevention and control of small pox. Usually, when you find a case of small pox in a community, from one to twelve persons will be found in the room, or house, who have never been vaccinated—some of them sleeping in the same bed with the patient infected with small pox. Although these unvaccinated persons may have been exposed for several days to the contagion of small pox, it is by no means inevitable that they must take the disease. If vaccinated at once, with virus, which will promptly infect them, a large number of them will be saved from this fatal disease. Marson says: "Suppose an unvaccinated person to inhale the germ of variola on Monday;

if he be vaccinated as late as the following Wednesday, the vaccination will be in time to prevent small pox being developed; if it he put off until Thursday, the small pox will appear, but will be modified; if vaccination be put off until Friday, it will be of no use; it will not have had time to reach the stage of areola, the index of safety, before the illness of small pox begins; this we have seen over and over again, and know it to be the exact state of the question." I can attest the truth of this assertion, having, upon several occasions, acted upon it, and thus saved unvaccinated persons who were sleeping in the same bed, or room, with malignant cases of small pox. But, to do this, you must use virus which will develop a full vaccine vesicle within ten days—the stage of incubation, as is well known, of small pox, being fourteen days. Humanized virus very rarely shows delayed vaccinal results—bovine virus frequently does. Dry lymph, from any source, has this objection of delay. In this important field of practice, the greater certainty of humanized virus "to take," gives it another high advantage over bovine virus.

Finally—but far greater than all—I object to the general use of bovine virus because the physician thereby surrenders his personal care and supervision of propagation of vaccine virus, and places his reputation and the health and life of his patient into the hands of men who are solely interested in the dollars and cents involved in the transaction. The fear of God and the love of man has never yet shed its divine effulgence over the human heart with such overpowering weight as to cause this specialty to be carried on solely upon the ground of phil-

anthropy. All men are just human, and should be removed from the temptation to charge from two to five hundred "points" from one poor, bleeding, cow pox vesicle, because the demand at ten cents a piece is greater than the firm can supply. If the future shall ever demonstrate the necessity for general vaccination with bovine virus, let the United States government place the National Board of Health in charge of a bovine farm, and with liberal appropriation of public money carry it on with an interest solely that of prevention of small pox—not gain of money. When this shall have been done, let this virus be sold—not given—to reliable physicians, and if "points" must be used, let only such number be charged from each vesicle as will insure their being covered with vaccine lymph, not serum drawn out by irritation of the vesicle so long as it will yield drops at ten cents apiece. Evidence has recently been obtained which shows that the most unblushing frauds, and dangerous species of villainy, are daily and hourly perpetrated upon physicians and laymen by furnishing impure and ineffective vaccine virus. We find vaccine powder dispensed to the credulous buyer at so much a grain, warranted to be "pure bovine virus reduced to powder," and when it is examined, or its history traced, is found to consist of imperfect vaccine scabs, primary and secondary, flesh, blood, leaves, seed, gum or any other substance that will give it weight.

Among the prominent persons or companies furnishing vaccine virus, no one has been more severely censured than the New England Vaccine Company, of Chelsea, Massachusetts, in the sale of an article known as "solid lymph cones." Evil results from use of this article

having been reported, Dr. Lindley, of the Connecticut Board of Health, sent one of these "solid lymph cones" to Dr. T. Mitchell Prudden, Director of the Physiological and Pathological Laboratory of the College of Physicians and Surgeons of New York, for examination. Dr. Prudden's report says: "The mass consists largely of larger and smaller clusters of epithelial cell detritus, together with a large number of hairs, some broken off and others torn out by the roots. Besides these things there are fragments of vegetable substances of various kinds, fibres, bits of seed, etc., shreds of connective tissue fibres, starch granules, and considerable colored amorphous material whose nature I was unable to determine. A few lymph cells and fragments of the same are also present."

Chief Engineer Whitaker, of the United States ship Minnesota, died, it is asserted, from vaccination with this "pure bovine virus," "solid lymph cones." To show that these cones must be full of danger, I quote a portion of the letter of Dr. Hopkins, of Thomasville, Georgia, a prominent member of this Association, to National Board of Health. He says: "Our town authorities have employed a physician to vaccinate all persons presenting themselves for the purpose. The virus was furnished by the town, and procured from the New England Vaccine Company, Chelsea, Massachuseetts, as 'bovine matter.' The result has been fearful. Nearly every one vaccinated has suffered severely from erythema or erysipelas, the arm swollen from shoulder to wrist, and the point of puncture presenting the appearance of sloughing ulcer, discharging freely sanious pus. Many of the cases have been confined to bed, with high fever, from five to ten days, requiring the

constant application of poultices and free use of morphia for relief of pain."

Tube lymph is a species of fraud practised upon us. Nearly all of these tubes are filled with oleaginous substances, with homœopathic doses of virus mildly incorporated. I regard this tube virus as wholly worthless, for I have seen as many as twenty-four of them used, and not one successful vaccination obtained. Again: the reports of Inspectors of National Board of Health, sent to inspect vaccine farms furnishing bovine vaccine virus, shows that at several of these farms the "points" are charged by ignorant farmers, who know nothing whatever of the vaccine disease, and have no knowledge of the stages of the "vesicle, lymph, or pus, being of course, all the same to them." These officials also show that at some of these vaccine farms, propagators are extremely careless as to avoidance of filthiness in the animals vaccinated, and the premises in which they are kept. These testimonials should awaken us to a realization of the extreme dangers of using vaccine virus not propagated under our own eyes. Far be it from me to charge mendacity and venality upon all propagators of bovine virus in this country. I am happy to say that many of them are gentlemen of the highest standing, and undoubted integrity. The gentleman whose writings I have freely criticised, is, I feel assured, a gentleman of high standing in our profession, and of undoubted honor in any commercial transaction. I think a specialty has awakened,—as it frequently does—too much ardor in his present field, and caused him to claim too much for bovine virus. If anything has been demonstrated in this paper it is that there

is no necessity whatever for abandoning Jennerian vaccination and resort to bovine virus, but, to the contrary, humanized virus has far higher claims upon our profession; that vaccination should remain where Jenner placed it—in the hands of every competent physician in the land. Be not led away from the good old method because of the groundless cry of degeneration of lymph. You will find that the whole trouble in relation to vaccination lies in degenerated practice. Let physicians arouse from the slumber of neglect of this important measure, cease to regard it as one of the lost arts, realize that it is a living, moving reality, which when rightly practiced and extended, shall carry health, long life and happiness in its train. Let him who is unacquainted with the appearance and phenomena of the typical vaccine disease lose no time in its study; and then from the unpretentious husbandman, who in raising wheat and other grain, selects the finest specimens as seed from which to gather from a fruitful soil an abundant harvest, learn to select the most typical vaccine vesicles from the most healthful subjects and in good ground sow the seeds of cow pox,—a disease which if universally inoculated, and repeated at necessary intervals, would banish from the face of the earth one of the most loathsome and fatal diseases known to man.

HEMORRHAGIC MALARIAL FEVER.

By R. M. BROWN, M. D., of Toombsboro.

Having had several cases of this so-called disease in my practice, I have selected this as a subject for consideration by this honorable body. I claim nothing in the treatment of this most fatal type of malaria. I can only give the symptoms in the cases which I have observed, and the treatment pursued.

I would most earnestly ask the suggestions of any gentleman present as to treatment, etc.

Synonyms.—I have heard only one or two other names for the disease. It is similar to one of Bright's diseases, viz., "acute diffuse nephritis," which is mentioned by Dr. Francis Delafield, Professor of Practice in the College of Physicians and Surgeons of New York City. There is a disease common in Southern Texas, said to be the same as this—it is known there as "black jaundice." It resembles yellow fever in some respects, yet differs enough to exclude this from the diagnosis.

Pathology.—Of the pathology, we know nothing, as there has been no opportunity for a *post mortem.* Our County Association has passed resolutions to authorize any of its members, who may have the opportunity of holding such *post mortem*, to extend an invitation to any of the profession. We most especially extend this invitation to some good pathologist.

Etiology.—According to my opinion, it is solely of malarial origin. The disease can be traced to exposure to emanations from the mud and decaying vegetable matter of ponds, lagoons, etc. It is, I think, endemic, and confined to the lowlands.

Occurrence—The disease presents itself with no complications, that I have been able to discover. The lungs are sound, therefore it is not complicated with pneumonia, nor with typhoid fever, as there is no abdominal tenderness.

Diagnosis.—The diagnosis is easily made, for if one has ever seen a case, he will not mistake it a second time. All the symptoms in the prodromic stage are well marked.

Invasion and Symptoms.—The invasion is comparatively of sudden occurrence—the prodromic stage lasts, at its longest, two days. The patient is then taken suddenly with a severe rigor, which lasts for an hour or more. Then the fever sets in; and strange it is, that while the integuments are cold, temperature by thermometer registers 103°,–'4°,–'5°. The patient passes urine in a few minutes after he is taken, and it is found deeply colored, and seems to be composed of detritus from the kidneys, mingled with venous blood. Vomiting continues throughout the disease; vomited matter of inky blackness. Suppression is extreme. The whole body is of a deep yellow; eyes same color.

Prognosis.—The prognosis is bad, if the case is far advanced. But if seen early, it may be successfully managed.

Treatment.—Treatment consists in hot mustard baths,

friction with dry mustard, hot irons to feet, etc. Enemata of 40 gr. doses of sulph. quin. every three or four hours—dissolving the quin. with elix. vitriol or with sweet spirits of nitre; digitalis to regulate heart's action; use diuretics, acet. and iod. pot., or the best of these for producing diuresis is pilocarpine, or jaborandi; muriated tinct. of iron as tonic. Nourishment should be sternly enforced, as the family will often be negligent of this most essential part of the treatment.

SYMPATHETIC INFLAMMATION—ITS MODE OF TRANSMISSION AND ITS NATURE.

By J. M. HULL, M. D., of Augusta,

Clinical Lecturer in the Medical College of Georgia, Medical Department University of Georgia, Etc.

Having had during the short time that I have been in practice several severe cases of sympathetic ophthalmitis, and recognizing the dangerous nature of this affection, my attention has naturally been directed to the study of its pathology, mode of transmission and its nature.

Having further had one case that presented marked points of interest, I will introduce my subject by the recital of the same:

J. W., aged 35, presented himself for treatment on the 14th of November, 1881, with the following history:

In September, 1875, he received a lick in the left eye by walking against the end of a walking-cane held under a gentleman's arm. The blow, while injuring the cornea, did not perforate or rupture it, but set up severe inflammation, from which the eye was lost in a few weeks. In June and July, 1881, the patient suffered intense pain in the injured eye. In August, 1881, he experienced loss of sight in the other eye, so that he could find his way about with difficulty.

At time of presentation patient could scarcely count fingers at two feet. Upon examination of left eye, it was found to have shrunken to about two-thirds its normal size; the iris completely adherent to the anterior capsule of the lens, the pupil occluded, and it was sensitive to the touch in the ciliary region, especially so above and outwards. The right eye was perfectly normal from without. With the ophthalmoscope no reflex could be obtained, and only after wide dilatation of the pupil could be seen that there were extensive, dense opacities of the vitreous body.

I regarded the trouble as a sympathetic affection, and, therefore, advised the immediate enucleation of the injured eye. The patient would not consent, and returned to his home in the country, where he was treated by letter till the 22d of February, when he again presented himself. Vision was improved, though not sufficiently so as to allow him to do work of any nature.

The sensitiveness of the injured eye not having at all diminished, I again urged the enucleation, and on the 23d of February, 1882, performed the operation.

Vision in the right eye began rapidly to improve, and on the 17th of March the opacities had been so far absorbed as to enable the patient to read No. 2 of Jaeger; the ophthalmoscope giving an indistinct view of the optic disc. April 3d, while the opacities have almost entirely been absorbed, the vitreous is still too clouded to give a clear view of the fundus.

The sight, however, is nearly perfect again. The patient has resumed his occupation, and is doing well.

Upon making a section of the enucleated eye, the iris

was seen to be drawn forward, and impregnated and covered by solid exudations; the lens thoroughly calcareous, and a bony cup formed from the choroid, extending nearly up to the ciliary processes, and to which the choroid was adherent, the retina lying in its anterior concave surface.

It was evidently a typical instance of those cases described by Knapp, where true osseous tissue was formed in consequence of plastic inflammation of the capillary layer of the choroid in an eye that has undergone atrophy and become shrunken.

We know that a shrunken eyeball, in which a deposit of bone has taken place, is often very painful, both to the touch and spontaneously, and gives rise to sympathetic inflammation.

The question now arises, in which way is the sympathy here transmitted?

Mackenzie suggested that the transmission of sympathetic ophthalmitis from one eye to the other, is to be sought, either by reflective nervous action, through the ciliary nerves, or propagated, per continuitatem, through the optic nerve along the chiasma.

The hypothesis of transmission by reflective nervous action has been, till lately, the most generally adopted.

Prof. H. Snellen says: "The phenomena here observed were even utilized as a proof of the direct trophic action of the nervous system on the nutrition of the tissues. Sympathetic ophthalmitis was on this hypothesis regarded as an analogue of the neuro-paralytic sloughing of the cornea, after division of the trigeminus; and also as analogous to the keratitis, consecutive to herpes zoster of the frontal nerve."

"Both these analogical types have lost their value as proofs of the trophic influence of nervous action."

Snellen succeeded some twenty-five years ago, in proving that ophthalmitis, after division of the trigeminus is not a neuro-paralytic phenomenon, but the result of injury to the anæsthetic face.

After cutting the trigeminus of a rabbit, he closed the eye, and fastened the sensitive ear before the anæsthetic face, thus preventing traumatic influence, and hereby annihilating neuro-paralytic inflammation. "In the same way herpetic keratitis has ceased to stand as a proof of nervous nutritive action; Dr. Wyss, of Zurich having shown convincingly that herpes zoster consists in continuous inflammation of the nervous fibres, propagating itself to the final ramifications of nervous tissue in the epidermis of the skin, and the epithelium of the cornea."

"After withdrawing these interpretations of analogical processes, to attribute sympathetic cyclitis to reflective nervous action, makes of it an isolated fact, and as such it is apparently not beyond distrust."

Donders tells us however, that: "Reflective nervous action can undoubtedly produce sympathetic irritation of other parts, and sympathetic neurosis of the one eye may be ascribed to nervous irritation." Neurosis, however, is not sympathetic inflammation. Both may coincide, but the one need not be the sequel of the other. If then, sympathetic inflammation is not transmitted by reflective nervous action through the ciliary nerves, is Mackenzie right in saying that it is transmitted per continuitatem through the optic nerves, along the chiasma? We know that "sympathetic inflammation never occurs before a

characteristic process has been developed in the eye injured. It does not occur till two or three weeks after the injury, mostly later, and sometimes only after some years."

This occurs to me to be the true explanation of the case, and the sympathy in this case is not to be attributed to reflex nervous action caused by the pressure of the bony cup and transmitted through the ciliary nerves, but to the here existing choroiditis. For the mode of transmission I will quote further from Snellen: "In the beginning the tension is lessened, but it constantly increases before the second eye is affected. The increase of tension proceeds from the posterior part of the eye. The iris is drawn forward and on anatomical investigation of the extirpated eye, we find the iris impregnated and covered by solid exudations. The vitreous humour, and with it, partly or totally, the retina is often drawn forward into a funnel shape; the apex of the funnel, remaining attached to the optic nerve, seems to pull forward its tissue. We may conclude that the lymphatics through the iris and the anterior parts of the eye are closed, whilst those of the posterior part of the eye are becoming dilated. The patholgical changes in the uveal tissue are characteristic. In all cases of extirpation of the globe, where sympathetic inflammation has already arisen, and in many cases where apparently it was imminent, we find the uveal tissue thickened, impregnated and covered with lymphoid cells and granular masses. These lymphoid cells and granules are spread through all the tissues of the posterior part of the globe."

I found in the enucleated eye these lymphoid cells

through the posterior part of the eye, and there seemed to be lymphatic sheaths surrounding the optic nerve.

I, therefore, embrace the suggestion of Snellen that the lymphatic vessels were the most probable parts along which the affection was transmitted from the first eye to the other.

Prof. MacGillavry, of Leyden, reports several cases in which the retina and vitreous humour were drawn forward in a funnel shape, and the uvea considerably thickened and infiltrated with lymphoid cells. Lymphoid cells were abundant in the tissue surrounding the optic disc and in the subdural space of the optic nerve.

Pagenstecher has published a case of injury where the optic nerve had been torn off and still sympathetic affection followed. He concludes therefrom against the transmission of the inflammation along the optic nerve.

Snellen suggests that the lymphatic communications may be restored through the connective tissues after division of the nerve. In those cases where neurotomy has been performed and sympathetic affections have still followed, the same explanation is admissible.

If it is admitted that transmission of the inflammatory process may occur through the lymphatic spaces, the question then arises: what may be regarded as the substantial constituent of the transmitted principle? Leber suggests that it may be attributed to parasitic infection, which theory is further supported by the anatomico-pathological investigations of R. Berlin and Leber. For they have found in addition to the development of lymphatic cells, granular-looking masses, which showed by their movements that they were living masses.

Snellen speaks of a case where he extirpated an injured eye,—all care being taken to use only new instruments, boiled salt solution, etc., and where the first scraping from the cicatrix presented moving molecules. "All the field of vision was a living mass. Soon we recognized that most of these were pigment molecules of the prolapsed uveal tissue. In the meantime several somewhat larger bodies showed by their ampler movements all the characteristics of micrococci. The same was found all over the choroid. The sheath of the nerve carefully split showed moving bodies—apparently micrococci."

The results of my considerations may be briefly summarized as follows:

1ST. The hypothesis that sympathetic ophthalmia is explained by reflex nervous action through the ciliary nerves is devoid of all convincing proofs.

2D. Sympathetic ophthalmitis may be looked upon as proceeding from a septic choroiditis of definite type, not improbably resulting from an abnormal continuity between the external tissues and the uvea.

3D. The morbid changes of the vessels, the increase of lymphoid cells, and perhaps, also, the accumulation of microphytal organisms, are the guiding signs that may indicate the direction in which the morbid process is propagated.

4TH. The path of transmission is most probably along the lymphatic spaces of the optic nerve.

SYPHILITIC ULCERATION OF THE EYE-LID (CONJUNCTIVA) IN THE INFANT.

By A. W. CALHOUN, M. D., of Atlanta,

Professor Eye, Ear and Throat Diseases in the Atlanta Medical College.

In the adult, we are accustomed to seeing syphilis, in some form or other, take hold of almost any and every part of the body; and, even in the infant, it is not unusual that the disease manifests itself, secondarily, in various ways; but it is so seldom the case that syphilitic ulceration takes place upon the mucous membrane of the eye-lid, that I am induced to report the following history:—

It is now eight years since Mr. A. J. M. contracted primary syphilis. The disease progressed uninterruptedly till a portion of the upper jaw and a part of the bones of the nose were destroyed, without, however, much disfigurement. Upon the supposition that he had been cured, he married four years ago, and in due course of time a son was born, who was at birth, and up to the present, remains a specimen of robust health. One year ago another son was born, who, from birth, has been a typical specimen of hereditary syphilis.*

*No attempt will be made here to explain why the first child was free from syphilis and the second had it. The mere fact is given.

Copper-colored splotches first appeared over the entire body, then eczema upon the scalp, with enlargement of the cervical glands, then ulceration of the right pre-auricular glands.

Two months back, phlyctenular corneitis began, the phlyctenules running together and breaking down into corneal ulcers in each eye, causing the pain and photophobia, and other distressful symptoms, so often met with in children with so-called "scrofulous sore eyes."

The eye disease had been in existence two months when the child came under my observation, and in addition to the extensive ulceration of each cornea, the following condition of the lid appeared: The left upper lid was swollen and angry-looking, and extended downwards over and covered the lower lid. Upon everting the lid, a very characteristic syphilitic ulcer was found to occupy the centre of the conjunctiva, being near the size of a three-cent coin. It had the ragged and undermined edges, the dirty surface, and other marked appearance, which so readily distinguishes the specific ulcer from all other varieties. Aside from the father's history and the general condition of the child, the ulcer itself left no doubt as to the diagnosis.

The little patient was immediately put upon anti-syphilitic treatment. Iod. potass. was given in 2 gr. doses and gradually pushed to 15 gr., three times a day, with the happiest results.

The sulphide calcium was also given in one-sixth gr. doses, mixed with a little sugar of milk, for its alterative effect. As local applications, the sulph. atropia (gr. i to ʒi.) was used upon the eyes for its curative influence upon

the corneal ulcers, and an ointment of the yellow oxide of mercury (gr. ½ to ʒi) applied to the edges of the lids, which had become excoriated by the profuse lachrymation. The eyes were kept as free from matter as practicable, but, throughout the treatment, no application was made to the conjunctival ulcer.

The child has been under treatment one month, and the syphilitic ulceration of the lid, and every external symptom of the disease, have disappeared, though the phlyctenular inflammation of the cornea still remains to a slight degree.

The history of this case is recorded, not because of the rapid recovery under this particular treatment, but because of its infrequent occurrence. In so far, the case is of special interest. I have met with a few similar cases amongst adult hospital patients, but neither in a very large hospital experience, nor in a private practice of a good number of years and comprising many thousand patients, have I ever before seen the disease upon the mucous membrane of the eye-lid in the infant.

A CONTRIBUTION TO THE LOCAL USE OF ERGOT IN CHRONIC AFFECTIONS OF THE EAR, THROAT AND LUNGS—WITH EXPERIMENTS AND REPORT OF CASES.

By H. F. SCOTT, M. D., of Atlanta,

Late Professor Diseases Eye, Ear and Throat, Southern Medical College.

My attention having been directed through the medical press to the beneficial effects of ergot in certain affections, induced me to believe that it might be serviceable in a still wider range of cases; hence I was led to experiment with it pretty extensively in my practice, and I may say that in the last ten weeks I have used some combination of ergot invariably in treating chronic affections of the ear, throat and lungs, and so far, with the happiest results.

At the time of commencing these investigations I had on hand a number of such cases, which had been treated with other applications by myself and others for varying periods, with indifferent success.

So far I have treated exclusively with this remedy, three cases of chronic otorrhœa;—using the undiluted fld. extr. ergot (Wyeth's), and pouring in a sufficient quantity to fill the auditory canal and middle ear, after thoroughly cleansing the ear by syringing.

Case No. 1 was that of a young man of this city who had been under my charge for six or eight weeks, and whose right ear had been for several years badly diseased. When I first saw him there was a copious, purulent discharge, with a loss of two-thirds of drum membrane.

In the beginning I treated this case by cleansing ear, and application of solution nitrate of silver; usually that treatment had given me perfect satisfaction so far as results were concerned, albeit being painful, and discoloring integument of canal and surrounding parts; but in this particular case it did rather harm than good.

Having determined to experiment with ergot, I made use of it, and marvelous and incredible as it may appear, *one application sufficed* to effect an immediate cessation of the disgusting and health-undermining discharge. Four weeks have now elapsed and there has been no return of the discharge. In the meantime the perforation in the membrana tympani is constantly growing smaller.

The next case in which I used this remedy was that of a child, about two years of age, in which there was a perforation of both membranæ tympani and muco-purulent discharge; this case yielded promptly to the remedy. This patient was the child of a neighbor, and relative of mine, and I enjoyed ample opportunity of studying the case from its inception to the cessation of the discharge. About six weeks after birth this child contracted a severe cold, which by stopping up both nostrils, and in other ways, interfered to a great degree, at times, with its nursing the mother's breast. After nursing some minutes and not being able to do this and breathe at one and the same time, it would in the effort to do so, become almost

strangled, and the violent exertion ensuing would cause a gaping of the eustachian tubes and consequent flooding of the tympanum with milk, which, acting as an irritant by long retention, sufficed to induce perforation of membrana tympani and discharge from ear. And whilst on this subject, you will pardon me for saying, par parenthesis, I am satisfied a vast number of cases of infantile otorrhœa are directly attributable to this flooding of the drum cavity with the breast milk.

In the case above I was enabled to detect the presence of milk in the auditory canal, after a severe seizure of the nature described.

In other cases I have seen these "strangling spells" followed by the most agonizing pain and accompanied with pitiful crying and mourning, where I was, from extensive study and observation of ear affections in children, enabled to decide the pain to be due to the above mentioned cause acting on an already inflamed middle ear.

I may be pardoned for adding what may be unknown to some present, that is, that we possess a simple prophylactic and therapeutic device by which I have been enabled, in many of these cases either to avert suppurative processes when imminent, or to give prompt relief when already present. This procedure consists in placing a little oil or vaseline in each nostril, (and it of itself, by softening the secretions and allowing them to flow away, is often all sufficient), and afterwards applying the mouth to the child's nose and alternately exhausting and inflating the nostrils with air. By this means we open up a passage for the air, and clear the eustachian tubes, and even the drum cavity, from any mucus or milk that may be present.

Especially effective will this method be found, if at the same time, the infant's mouth be tightly held closed.

But to return from this digression to case of otorrhœa No. 3, which presented somewhat the same subjective and objective symptoms as the first case related. I will not tax your patience further than to say it also yielded to the use of ergot, but after a longer treatment, between two and three weeks.

Of course, in these cases, besides cleansing the ear once daily and applying the ergot, I took every precaution to prevent chilling, etc, of the ear, by applying a little olive oil or glycerine, and placing a pledget of cotton in the meatus, and instructing patient to retain cotton in position for half hour or so, according to the state of the atmosphere at the time.

Not wishing to consume too much of your valuable time, I will merely state that I have had a like fine effect with this and other preparations of ergot, ergotine for instance, pure or diluted, in varying proportions, and with various additions of other medicines, in some cases of chronic pharyngitis and post-nasal catarrh. These cases are not yet ready to report, but are progressing finely.

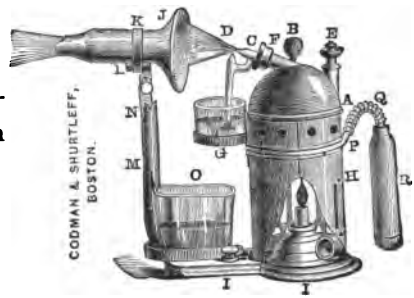
But where in my practice it has so far been most serviceable, and what I regard as most important of all, is the demonstration to my mind that it is, by all odds, the best application in those frequently-met-with and very intractable cases of chronic bronchitis.

The local applications usually relied on in these cases, such as inhalations of iodine, tar, creasote, benzoin, etc., aside from some of them being very expensive, are dirty,

unpleasant and irritating, whilst ergot fluid extract, in strength of one to two or three of warm water, is directly the opposite, being grateful to, I may say, all patients.

For treating affections of the bronchial tubes and lungs, I now invariably make use of a steam atomizer for the purpose of bringing the medicine and aqueous vapor directly in contact with the diseased surfaces.

The make of instrument I prefer is Codman & Shurtleff's Compound Steam Atomizer, which costs $5.00, and should be in the hands of every physician, or No. 2, known as the Hand-bulb Atomizer, $3.50.



Now the steam alone, from this instrument whilst passing through the glass mouth-piece, becomes too cool to be agreeable to, or bearable to the lungs, hence the necessity of diluting the ergot by placing some warm water or other preparation in the medicine glass.

Finally, ergot is especially serviceable if there have been pulmonary hemorrhages or any tendency thereto.

I will not attempt in this paper to explain the method of this medicine's action, but will reserve that for a future communication, and further research. In the mean time, I think I can recommend its use in your practice, and confidently predict a like good result in many cases if judiciously used.

IS TYPHOID FEVER CONTAGIOUS?

By W. H. PHILPOT, M. D., of Talbotton.

In June last, I received a telegram from the wife of my son, Dr. L. K. Philpot, of Columbia, S. C., that he was very low with typhoid fever, expected to die, and my presence was desired.

I soon arrived, and found my son very nearly dead, and under the treatment of Drs. Tally and Trezvant. I can never cease to remember with feelings of gratitude, the untiring and devoted attention these brother physicians gave my son.

I remained with him some three weeks or more, in all his changes for better and worse, troubled bowels, hemorrhages, delirium, exhaustion, etc., expecting, as was anticipated by his physicians, he would certainly die.

It was decided, in consultation with Drs. Tally and Trezvant, that if I could convey him to my Georgia home, in a special car, his life might be saved. There he could be nursed by fond and affectionate sisters, and a devoted step-mother, who had loved him from a little child. No one ever had better attention (nursing and medical), the latter given him by Drs. Wells and Bardwell of my town. The fatigue in transit was very great, requiring a day and night stopping over in Augusta, at which time Dr. DeSaussure Ford kindly visited him, and advised for his benefit.

We arrived home, where he continued with troubled bowels, delirium, hemorrhages, etc., for three or four weeks, when his sisters, who nursed him, were stricken down with the same fever, then the mother, whose attention was devoted. One day, two; the next, three; and at last, all who watched on him, save myself, were confined to bed,—making in all, five sisters, the mother, two aunts, house-girl and cook. A brother came from Arkansas to visit his sick brother, remaining twenty days. I would not permit him to nurse or sleep in the house. On his return to Arkansas, he was at once attacked with the fever, and remained under treatment four weeks. Thus making in all thirteen cases.

Three of my loved ones died, and at one time it seemed all would die from severe hemorrhages. My house and surroundings, I am satisfied, did not produce any cause for the *scourge.*

A Mr. McLendon with his small family lived near my residence. His lady was taken sick and remained so, better and worse, for several weeks. The house he occupied Mr. L. A. Baldwin moved into so soon as Mr. McLendon vacated, which was when his lady was able to move. A brother of Mr. Baldwin boarded with him, and occupied the room Mr. McLendon vacated,—the furniture, bed, etc., remaining the same. This brother was stricken down and hovered for days between life and death. In the same house boarded a newly married coupled; the wife was taken sick and removed to her father's in the country. Not very far away from this street a Mr. Murphy lived, having only a wife and two children with him, one more being absent in the country. A little boy of his was

sick, and, thinking he would die, Mr. Murphy sent for his little daughter in the country. She came, sickened and died with her little brother whom she came to see.

In the same house lived a Mr. J. W. Hall, a young lawyer of our town, with his wife and babe, one and a half years old. The wife and babe were stricken down, the babe dying, and but for a fine, robust constitution, the wife would have succumbed even before her little babe, who lingered for some days and then died.

A Mr. McLendon, from Americus, came on a visit to our town, preparatory to moving. He was a brother of the one whose wife had been so very sick. He occupied the room in which his sister-in-law had been treated, and in a few days I was called to see him. Satisfied he was, from his peculiar symptoms, destined to be stricken as was the others, I advised him while he could to return to his own home in Americus. He did so, but was confined to bed with the fever for several weeks.

A minister, the Rev. Mr. Ivey, moved to Mr. Baldwin's as a boarder; his wife was taken sick with this fever and for weeks hovered between life and death.

A daughter of mine who had escaped up to that time, decided she would accompany her aunt, who came on a visit to us, to her home in an adjoining county, to remain only a few days. But very soon after their arrival at their destination, both aunt and daughter were taken sick and remained seriously so for several weeks.

There were other cases that could be reported, but it is not necessary. No cause locally was decided to exist at my own or the houses of those where the fever existed.

I do not set out with any intention of speaking of the treatment, etc., adopted, but desire, very respectfully, to call the attention of the Association to the mooted question: Is typhoid fever contagious? and ask a discussion of the same.

NOTES FROM THE FOURTH CONGRESSIONAL DISTRICT.

By THOS. S. MITCHELL, M. D., of Hamilton.

Being one of the Committee on Gynecology from this district, I have thought proper to make some report, believing it to be an imperative duty of each member of our time-honored Association to contribute whatever he may have for the advancement of our profession. Although his mite is small in experience, and clothed in common language, it may be the means of leading some worthy brother physician in the right path to relieve suffering woman, who, of all others, deserves our sympathies, respect, and our most scientific care and faithful attention. Therefore, being prompted with this feeling, I have the honor of reporting only one case that I deem of sufficient interest, although my practice covers many years of a very diversified experience in an extended country practice. Of course, I have had cases that I could enumerate that would interest some, but this single case, of all others, I think of sufficient interest to bring before you.

In 1856 it was my lot to practice my profession in the State of Alabama. Having moved to a new location, being a new man, I must have new ideas, new medicines and everything else new. "A new broom sweeps clean"—

consequently, I soon had calls to "old hard cases," such as had worn out the patience of all the doctors and old women in and near my new location. Among the rest of some "knotty cases," I was called to visit a young woman of poor parentage but good family, with many true and sympathizing friends. I found she had been treated by two physicians some six months before. One of them pronounced the case as simple pregnancy, and she would soon be all right again. The other was called about twelve months afterwards, and after a more careful examination, diagnosed the case as one of dropsy, ascites—each making his prescription according to his own peculiar views—the patient gradually growing worse all the time. Some months afterwards I moved to said location. The family had waited patiently for a long time for Mary to die, as her case was regarded as entirely hopeless, and nothing but death would ever give her relief. Under these circumstances, I was called—"Maybe the young doctor may ease her."

Upon my first visit I found a young woman about 22 years old, very anemic and much emaciated, large eyes, and very expressive of pain and long, patient suffering. A general history of her case was given to me by her mother and father, which took a long time, though after I had given the recital a careful attention, I knew I was in for trouble if I undertook the case. "I must hunt a new trail" or I should fail, too. I found the abdomen very much distended,—as large as an ordinary woman would be at full term of gestation; and that from the age of 16 she had had regular monthly sickness from three to six days, "though there never was any show." "But I tell

you, doctor, she got bigger every month, and when we thought she was going to have her baby, we had old aunt Dilcie with us two weeks; but she did not have it, and she hain't got it yet; and I fear, poor thing, she will never have it now." I was much of her opinion. I demanded a vaginal examination, which was very reluctantly accorded. Upon a very close and careful examination I found the hymen intact and ruptured it with my finger; the vagina not over one inch in length; a tumour was felt, soft and smooth, presenting a shining appearance, like an abscess just ready to rupture and pour out its contents without the use of lancet. I found no os uteri, nor anything that resembled it,—nothing but the soft and shining tumour. I hesitated. I did not know what was best. The people had employed "the new doctor;" Mary was in imminent danger and wanted relief.

I determined to act very boldly, and show my self-confidence, (a good thing for young M. D.'s unless it should unfortunately give them the big head, a very fearful and troublesome disease, among the young bloods). I had no reputation, and but very little money. "I took the chances and won." I exposed the sack, or tumour, or whatever you may please to call it, and punctured it with a knife, to the depth of one-half inch—feeling my way very cautiously, and imagine my surprise and elation to find I had, with one stroke of a knife, made a grand reputation and relieved my patient. The discharge was almost incredible—very great indeed—of a dark, gelatinous, bloody appearance, about the consistency of thick syrup, and very offensive indeed. My patient expressed herself as well, relieved, happy, and a new lease of life

given her, and "I, why, I was big doctor too much." With the use of an old fashioned pewter syringe, about 12 ounces in size, I used warm tar water (as there was a disease among the stock in the neighborhood, like glanders, every family in the neighborhood were using tar water, as a preventive and protection of the family's health), three times a day for several days; put her upon iron tonics, and she soon recovered her once robust, and almost perfect health. Menstruated regularly and healthily every month. Her character was saved, the family made happy, a reputation was made, all by chance and self-confidence—two wonderful motors if taken at the right time and direction.

Now to close, gentlemen, I ask you, was it a perfect occlusion of the os? Was it a *lapsus naturæ*, a wanting of the os? Or, what was it?

REPORT OF A CASE OF COMPLETE ATRESIA OF CERVIX UTERI, WITH RETENTION OF MENSES, PRODUCED BY NITRIC ACID—RELIEVED BY ASPIRATION AND BILATERAL DIVISION OF THE CERVIX.

By EVERARD H. RICHARDSON, M. D., of Cedartown,

Member of the Section on Surgery for the Seventh Congressional District.

Mrs. L. was a cranky subject physically, blonde, aged 30 years, and a native of Georgia. She had borne two children. I was with her in her last confinement, which occurred about fifteen months prior to date of the trouble about which I am now to speak. She came very near succumbing from the effects of a most frightful *post partum* hemorrhage coming on about twelve hours after her last parturient act, which was only relieved by the injection of a solution of the persulphate of iron diluted with an equal quantity of water into the uterine cavity, as recommended by Fordyce Barker. Careful examination of the cervix and perineum demonstrated the fact that they had escaped injury. In her exhausted and debilitated condition, she was attacked with puerperal malarial fever, which she with difficulty rallied from. Feeble, despondent, and care-worn, she was slowly carried through the usual treatment for subinvolution of the

uterus. She was kept upon the most orthodox constitutional remedies known to me for the relief of the occasionally recurring uterine hemorrhages, coupled with the local application of Churchill's tincture of iodine, iodized phenol, etc., to the cervix and cavity of uterus, until January 1st, 1881, fifteen months after her last delivery, when Dr. Chas. H. Harris, being in the neighborhood, was hurriedly summoned to relieve an alarming uterine hemorrhage. He introduced a sponge tent into cervix and applied a vaginal tampon. On the ensuing day we visited the patient together, and removed the tent and tampon. The case being some distance from me, I had not seen it for several months. The size of the uterus had been materially diminished and there was no displacement. The cervix being well dilated, we made a thorough exploration of neck and interior of fundus, and found no cause for hemorrhage except a granular and flabby condition of the mucous membrane of the body of the uterus. Not having a curette at hand, we decided to apply fuming nitric acid to entire mucous surface of cervix and body of the uterus. The application produced violent uterine tenesmus with threatened collapse. These untoward symptoms, however, were quickly relieved by a hypodermic of morphia and atropia. The sequel of this case will clearly show that subsequent to this application it was not watched with that vigilance which its requirements demanded. For the next three months, there was no sanguineous discharge from the uterus of the patient. At first, suspecting the possibility of pregnancy, I did not attempt to pass the uterine probe. Finally, however, the almost constant headache of this poor woman, giddi-

ness, flushed face, feeling of oppression, moderate anasarca of face and extremities, colicky pains over region of hypogastrium, and general nervous perturbation, recurring regularly every twenty-eight days, convinced me that I had a case of retention of the menses, and that, although there was no vicarious discharge, the above group of symptoms was nothing more nor less than the menstrual molimen. Physical examination revealed a uterus somewhat enlarged, with the cervical canal entirely closed.

On September 9th, 1881, assisted by Dr. Chas. H. Harris, the uterus was pulled well down with a tenaculum and an effort made to introduce Sims' small uterine probe, which was, of course, fruitless. We found complete atresia of whole cervical canal from the os externum to the os internum uteri, there not being even a depression to indicate the point of the external os. A large-sized aspirating needle was introduced through the cervix in the direction of the os internum uteri, and upon reaching the uterine cavity one and a half ounces of menstrual fluid instantly gushed into the aspirating bottle without pain or discomfort to the patient. One-third of a grain of morphia was given, and she was ordered to remain in bed. Almost three and a half months had elapsed since the appearance of her menses.

One week after thus giving exit to the pent up menstrual fluid we visited the case with the view of making a permanent opening through the cervix uteri. We found that a slight opening had remained in the track of the needle, and fluid had continued to dribble from this opening. With a probe introduced as a guide, bilateral

division of the whole cervical canal from above the internal and through the external os was made with Sims' knife, in accordance with Sims' method for the relief of stenosis of the cervical canal. The canal was then expanded with Sims' dilator, after which one of his glass tubes was introduced and retained by a tampon of alum cotton.

SEPTEMBER 19TH.—Removed vaginal tampon and washed vagina with carbolized water. Left tube in cervix, with small tampon to retain *in situ.*

SEPTEMBER 21ST.—Patient doing well. Syringed vagina and removed stem—canal sufficiently patulous. Re-introduced stem with string attached, and ordered patient to remove two days later.

SEPTEMBER 28TH.—Saw patient and found her condition good. Re-introduced stem and immediately withdrew. Monthly period not yet appeared, though about time. Two days later catamenial period appeared, normal in every respect. Three months later, saw patient and she had menstruated regularly and without further trouble, though there was some disposition to contraction about internal os of cervical canal.

REMARKS.—Until taught the lesson which the above instructive case so cogently enforces I was an enthusiastic follower of Lombe Atthill in his advocacy of the application of fuming nitric acid to the mucous lining of both the cervix and body of the uterus. Having used it thus many times, I never before saw its application attended with but little pain.

When I have found the endometrium in a condition of hyperemia, granular, thickened or studded with vegeta-

tions and followed with hemorrhage, the thorough application of fuming nitric acid has served me a better purpose in correcting these morbid conditions than the superficial scrapings with either the dull or sharp curette. But with the lesson here taught before me, I shall not in the future again apply to the uterus an agent so potent, unless the uterine canal is dilated to such an extent as to make contraction of its calibre a desideratum.

REPORT ON GYNECOLOGY.

By CHAS. P. GORDON, M. D., of Dalton,

Member of the Section on Gynecology for the Seventh Congressional District.

The writer has recently treated certain cases of hypertrophic elongation of the cervix uteri and uterine hyperplasia upon the system of position and pressure, recommended and originated by the distinguished Professor of Obstetrics and Diseases of Women and Children in the Atlanta Medical College. He had eminent success in otherwise apparently hopeless cases of this kind. One lady, however, remarked (who had been subjected to a long continued treatment), that there was one thing she hoped the good Lord would deliver her from the few remaining days she had on earth,—and that was sheep's wool.

A lady informed me that she had "weeping of the womb." She assured me that she had shed rivers of uterine tears. What the exact nature of this pluvia-uterine disease was, I am not able to say. I simply bring it to the notice of the profession. In the matter of normal ovaritomy, I am informed that in the early history of the country, negro women were brought over in the slave ships who had been spayed in early youth in their own country. They were barren in every case. The scars were found upon the abdomen in the ovarian region; and it was understood that the custom prevailed

in certain parts of Africa to perform this operation to prevent the propagation of the species. This is simply mentioned as a curious fact in the history of barbarous nations, not to dim the lustre of the fame of the distinguished originator of the operation of normal ovariotomy. Far be it from me. I am proud of his name as an American surgeon and as a Georgian.

An ovariotomy was done recently at Dalton. I stand before the Association somewhat upon the confessional in reference to it, though not chiefly responsible, being only accessory to the fatal result. The negro woman died from peritonitis eight days after the operation. The case seemed an eminently favorable one for success. There were absolutely no attachments, save the pedicle. The tumor, a large, solid ovarian sarcoma, was removed with the utmost facility, the pedicle transfixed, and tied with a double silk ligature and returned into the abdomen. The fatal result might be attributable to want of proper surroundings, and to the fact that no antiseptic precautions were adopted. A palliating circumstance, however, in the case, was that we endeavored to avoid the operation, by representing to the husband the dangers of the operation, but the more we described the dangers the more anxious he was to have the operation done; and after the old woman's spirit had taken its flight to that undiscovered country, and her remains were placed under the sod, he took unto himself another wife, and a much younger one.

Ovariotomy, what a boon to suffering woman! The memory of Ephraim McDowell, the father of ovariotomy, ought to be embalmed in the heart of every grateful

American. May the marble shaft erected to his memory rise up by enchantment from the ground, and may it lift its lofty form higher and higher until it shall be kissed by the first beams of the morning sun that gild the land of freedom, and the last purple rays of day that fade away in the west play and linger in glory upon its summit. May the name of Ephraim McDowell go down honored and sung to all future ages.

MALARIAL POISONING, THE CAUSE OF HÆMATURIA.

By W. O'DANIEL, M. D., of Bullards.

The question has frequently been asked, what is malaria? Bartholow says it is a morbific principle, which is developed when certain atmospheric and telluric influences exist. Austin Flint also admits the telluric source. Watson says the *emanations* which cause ague are called malaria, or marsh miasmata. Dunglison also speaks of the terrestrial emanations, the deleterious effluvia, etc. In Reynolds' System of Medicine, vol. I., page 352, we find it stated "that no chemist has yet been able to demonstrate the existence of malaria, and that the existence is *assumed* from certain observed effects on the organism, just as we do in the case of other poisons which produce certain specific diseases. Malaria is believed to be the product of organic decomposition in soils, etc. Others adhere to the theory of cryptogams, spores, germs," etc.

A few claim that perhaps it is only the absorption of electricity from the bodies of those who unfortunately reside in neighborhoods adjacent to these marshes, which *may* produce symptoms, thought to be malarious; and to re-supply this lost element, by the frequent use of the galvanic battery, remedies the evil.

All of the theories are, in a measure, hypothetical, and unsatisfactory to the scientific mind. However, we know by sad and practical experience, that there is an invisible "something" known as malaria, or marsh miasma, which nearly always exists in localities favorable to its production, which produces certain morbific conditions, and we have certain diseases known as intermittent, remittent, bilious, and pernicious fevers, agreeing in the nature of their cause,—each, however, requiring separate and distinct descriptions.

In the quotidian type, the paroxysm occurs every day. In the tertian, every other day. In the quartan every fourth day. We also have the quintan, sextan, septan and the octan; and we *sometimes* have the double quotidian, and the double tertian. The first two are, however, the most common.

Every physician, in districts known as malarious, should understand these disorders, and how to test them. Even the unprofessional will talk about the cold stage, the hot stage, and the sweating stage of these fevers, and the every day chills, and the every other day chills, and the third day chills, and their probable recurrences, on the seventh, fourteenth and twenty-first days, and they know too, the infallible remedy, the panacea. Quinine and its alkaloids, will certainly neutralize the poison, and give relief, if judiciously administered in time. It is an acknowledged and incontrovertible fact, that these morbific influences do exist, which will inevitably sap and destroy the health of those who suffer from repeated attacks and recurrences of chills without timely interference—and not unfrequently the lives.

Yet, why is it, that the public generally is so careless and unmindful of a matter so important to communities liable to be affected by this disastrous element, when so much could be achieved in the way of preventing these toxic influences.

True, it is a well established fact, that no fears may be entertained as regards contagion, but are we to remain inactive, and careless, and fear no morbific influences, save those of contagion?

If we are cognizant of the fact that small pox, or yellow fever is in the neighborhood, the alarm is sounded, the public authorities interested, and means and measures at once employed to prevent the spread of these diseases. This, we know to be prudent, wise and proper, and did we not so act, we would be culpable, and should be condemned by all intelligent people. But, scarcely is there ever the *slightest* effort made to even *lessen* the destructive influences of malarial poisoning by individuals, or by municipalities. Men of undisputed learning, and intelligence, with large families, will persist in residing within short distances of marshes, and mill-ponds *until, perhaps, forced away* by fright, as it were, after the loss of some of their loved ones, by disease and death; and those who by reason of vigorous constitutions, or good fortune, survive, *sometimes* take up their abode in more healthful climates, broken down by frequent attacks of these malarial fevers, then even, to be visited by like attacks and recurrences for months, and even years, (and some go so far as to contend that these poisonous influences are never thoroughly eradicated from the system), on account of the complete saturation of the system with miasmatic poison.

We have seen all this patiently endured without even an effort on the part of individuals or corporations to get rid of these pernicious influences by drainage, or other hygienic measures; which, in many instances, would require only a *small* pecuniary outlay *comparatively* by individuals or municipalities, to palliate and oftentimes relieve suffering humanity from disease and death.

We are utterly astonished and humiliated that in this enlightened age there is so little thought bestowed, and so little interest manifested, in the way of mitigating influences so destructive to human life, by the law-making power.

Our own State of Georgia, the Empire State of the South, has refused appropriations sufficient to make our State Board of Health (which is already organized and officered by as good medical talent as the State affords) operative.

We hope soon to see this evil remedied by a liberal appropriation for that purpose.

Our friend and colaborer, Dr. J. C. LeHardy, of Savannah, has earnestly endeavored to arouse the physicians and the public generally in regard to sanitation and the laws pertaining thereto, but, so far as I am aware, thus far his efforts, worthy as they are, have proven fruitless except in cities.

It is of very little practical importance to us, however, as practitioners of medicine, what this morbific influence called malaria is, inasmuch as it is known by practical experience, which is far more valuable than theory, that after inundations and overflows of large streams, in fertile sections, where vegetable matter is abundant and decom-

position rapidly going on during the summer and fall months, that scarcely any who live near such localities enjoy complete immunity from what are known as malarial fevers. The effects of malaria upon the nervous system, upon the spleen and liver,—indeed, upon the whole organism,—are too palpable to be mistaken, and nearly every one is affected either in a mild or malignant form, in a degree commensurate with the intensity of the promoting and producing causes.

In view of these facts, then, when residence in such localities is unavoidable, and when pecuniary inability of individuals prevent them from employing the proper means for drainage, and when co-operative measures cannot be employed for this most important purpose, it is the duty of the physician, for the sake of suffering humanity, to employ such preventive and prophylactic means as are within his reach to modify and mitigate the malignancy of these fevers as much as possible by advising and using remedies which will neutralize the poison as it is taken into the system. To accomplish this, engorgement of the spleen and liver must be prevented, if possible, by the use of such remedies as will keep them in a healthy condition.

Some of the preparations of mercury, wisely administered, are probably the better agents for this purpose; but, when we find these organs *already* enlarged, their normal condition may be restored by the free use of quinine and mercury, together with blisters, and perhaps the use of irritating ointments over the region of these organs. The internal use of iron is very beneficial indeed in anemic patients.

The too free use of drastic cathartics is not indicated, as they often weaken the patient without the desired effect of reducing the size of these vascular organs.

When chills do occur, never wait for the second one, which is sure to come if the cause is malarial, but be sure to anticipate the next paroxysm with quinine, which is the great neutralizer of malarial poison.

Should the second paroxysm be allowed to come on, it *may* be so very malignant in form as to destroy the life of the patient, despite the best and most skillful efforts of the physician.

To prevent chronic chills and their recurrences, if the liver and spleen have received their share of attention, the following pill will be found quite efficacious:

℞. Quiniæ sulph., ʒij; ferri sulph., ʒiss; acid arseniosi, strychniæ—aa gr. ij. M. Ft. pil. No. 60. Sig.: Dose—One pill after each meal, for an adult.

As it is now a very well established fact that the night time is when the system becomes saturated with malarial poison, and when the weather is damp and cloudy, dissipation by the sun's rays being impossible, our invariable advice to those who are residents of unhealthy localities, is to close their doors and windows after sunset, and to keep them closed until after sunrise, during the "sickly season," and to keep up constant fires when the weather is damp and rainy, for the purpose of drying their houses. This is especially necessary during the summer and fall months.

The white man long exposed to malarial influences, is sure to have enlargement of the spleen and liver, when such condition rarely ever exists in the black race,

although they may undergo like exposures. In this, most experienced and observing practitioners will agree. We do not wish to be understood as conveying the idea that the black man is exempt from the effects of malaria, but as a race, are less susceptible.

We have one striking evidence of this in our own field of professional labors. Marion, the former county site of Twiggs county, was once a flourishing village of, perhaps, a dozen business houses, but on account of its close proximity to Savage Creek, and an old mill-pond, and surrounded on one side, as it were, by a low, flat country, subject to frequent inundations, the inhabitants were *compelled* to abandon the town on account of malarial fevers.

It has been said (and the truthfulness of the statement is not questioned by old residents of the county) that only one white person born and raised in Marion, ever reached majority, and she died quite young. Not a single white person inhabits the old town to-day, while the black race live there with partial immunity from miasmatic fevers. During its commercial prosperity, it was a noted place for physicians, some of whom succumbed with their patients, while others left, to avoid the sad fate which they *knew* was awaiting them.

There are other places, however, in Twiggs county, near water courses and low marsh lands, which to all appearances are favorable localities for the destructive influences of malaria; but they are non-malarious, on account of belts of pine timber between these localities and the flats and streams so favorable to the production of miasmata.

For the same reason, the Australian eucalyptus globulus exerts a protective influence, and perhaps any dense forest growth interposing between the sleeping apartments of the inhabitants and these marshes, would exert the same preventive influence; however, the height of these trees, when they reach full growth, makes them more protective. There may be a special protective influence on account of the terebinthinate qualities of the pine, *especially* the yellow pine of the South, in which this principle so richly abounds.

Had the protective influence of this forest timber been known in the early settlement of malarious districts, many homes which had to be abandoned on account of sickness, might have remained healthy, by sparing belts of pine and other timber for their protective and hygienic influences. Many in the Southern States are now patiently awaiting a second growth of pine timber to protect them from unhealthy emanations, which arise from adjacent swamps and marshes, but the second growth is far less useful for this purpose, as it is invariably what is known as the short-leaved pine, and yields less turpentine, and never grows so tall. Perhaps there is a special therapeutic virtue in the turpentine, which may be preventive, if not curative.

On account of the pine forests, it has been said that no country offers better advantages to the consumptive than the piney-woods region of South Georgia. The climate is healthy and mild, neither too hot in summer nor too cold in winter.

The volatile oil which the pine abundantly yields is especially indicated as a stimulant to the bronchial

mucous membranes, and in these piney woodlands, interspersed with turpentine farms, the whole atmosphere is flavored with this terebinthinate element.

Perhaps we digress when we leave our subject, malaria and its influences, so far as to speak of pulmonary consumption; but every practitioner knows that malarial poisoning exerts a deleterious and complicating influence wherever it exists. In pneumonia, erysipelas, typhoid fever, dysentery, and even in surgical fever, quinine is indicated to prevent well marked periodicities. Without quinine we have what is known as a good day and a bad one. When the surgeon does an operation he advises quinine, for experience has clearly demonstrated its value, *especially* in localities where it is indicated. The most dreadful and malignant form of all malarial diseases is malarial hæmaturia,—a phase of disease practically unknown to the physicians of this section until about 1871, when it made its appearance in sections contiguous to the Ocmulgee River and Flat and Savage Creeks. It existed, however, in Southwest Georgia some time before. The first case in our section was a Mr. Carter, a young man, who had been suffering from repeated attacks of intermittent fever. He was treated at that time by Dr. S. L. Richardson, a gentleman of ability and large experience. The doctor, however, did not see him until he was in a state of collapse, and too late to be benefitted by remedies. His, to all appearances, was a case of genuine yellow fever. He had what is known as "black vomit," and on account of which there was much excitement in the community of Carter at that time. The attending physician, Dr. Richardson, informed us afterwards that

had the case occurred in any place subject to yellow fever epidemics, he would certainly have pronounced it yellow fever.

One afternoon in December, 1871, soon after the Carter case, I met a friend, Mr. A. B. Smith, a young man of 22 years, several miles from his residence in good spirits and in tolerably good health, save the effects of repeated attacks of chills, which he said had been troubling him all the fall. He, indeed, appeared more lively than usual. He went home, and in the evening of the same day he took what he thought to be an ordinary chill, but the cold stage continued longer than usual, and to the astonishment of himself and parents the hot stage did not appear at all. He was troubled all night with intolerable nausea, the stomach refusing to retain anything in the way of remedies offered for his relief. Finally towards the latter part of the night he voided an unusually large amount of bloody urine, which was the first alarming symptom noticed by himself and parents. A messenger was at once dispatched for me, a distance of five miles. I arrived about 8 o'clock A. M., twelve hours after the chill. Upon entering the room of the sick man I found him restless and tossing from one side of the bed to the other, with frequent attempts to vomit. At first sight his icterode appearance led me to suspect jaundice, but in a moment the bloody urine was shown me and the diagnosis was unmistakable,—we knew he had malarial hæmaturia. Dr. Richardson, who only resided a few miles distant, and who had but recently seen a case similar to this, was soon in consultation, and agreed with us in diagnosis and prognosis, as we had informed the parents of the young

man, immediately after examination, of his almost hopeless condition.

A careful examination revealed the following symptoms: Whole cutaneous surface of a deep yellow, liver, and spleen very much enlarged, and tender upon pressure. Tenderness over epigastric region, and also over region of kidneys. Conjunctiva almost as yellow as gold, with furred tongue, of a dark hue; semi-comatose condition, general corporeal coolness, with feeble circulation, and vomiting black matter. An unavailing effort was made to move the bowels with calomel, and frequent enemata, and large doses of quinine given per anum, as it could not be tolerated per orem, with blisters over liver and spleen, and one over the duodenum, as there seemed to be considerable congestion, and *perhaps*, duodenitis, and we supposed an occlusion of the ductus communis choledochus, thereby preventing the free passage of bile, natures own cathartic, into the duodenum; the result of which was an effusion of bilious matter through the whole system, and as yet, we have had no reason to change our *then* opinion, in regard to occlusion of the bile duct.

Every means was employed to bring about reaction by stimulants, etc,, but despite our efforts, he continued to grow worse, until four o'clock, when he died, in less than twenty hours after the chill, which produced these fearful symptoms of dissolution. Since then this dreadful malady has made his annual visitations, *generally* during the fall and winter months, and always attacking anæmic patients, of broken down constitutions, whose blood corpuscles have been disintergrated by frequent recurrences

of neglected chills and fever. I say neglected, because we scarcely ever fail to prevent these recurrences by adopting the plan of treatment heretofore advised in this paper.

Quinine, iron, arsenic and strychnine, with due care to the liver, will prevent the return of chills, if persistently, and judiciously administered. We know whereof we speak, for we have patients who live in *extremely* malarious sections, who commence this plan of treatment when first attacked, and they continue it, *except* at short intervals, during the sickly season.

Of course, we always break up the paroxysms with quinine, as it would be risky to rely on any tonic treatment to anticipate an expected paroxysm of chills. As we have already cursorily stated, much more than we expected to in this paper upon this inexhaustible subject, upon which whole volumes could be written, I will only give a brief history and the treatment of one case, out of many treated by myself since the case of Smith, in 1871. On the 28th of November last, I was summoned in haste to see Miss L., a young lady residing within a few hundred yards of Flat Creek, which had been for several years *partially* dammed up, by sand at a crossing, thereby causing a large pond, in which is much undergrowth, and large timber in a state of decomposition, an *excellent* locality for malarial emanations.

Miss L., had been visited during the summer and fall months by frequent attacks of intermittent fevers, which her mother informed me had been controlled by quinine, and that she had not been confined to her bed, except on her chill days (as she calls them) until the day previous

to my visit, when she was seized with a chill more severe in type than others which she had had.

The mother of the young lady suspected trouble, for the reason that a younger son had had two attacks of malarial hæmaturia, in two consecutive years, as late as December, and this same young lady once before, both with good and tolerably speedy recoveries. She had twice, since the chill came on, passed incredibly large quantities of a dark red matter in her urine, and was vomiting black matter, similar in appearance to that vomited by yellow fever patients, and too, without much effort, as a mere eructation would bring large quantities, with general prostration, partial delirium, distressing nausea, with profuse perspiration; skin cool to the touch, but complained of a burning heat of whole body.; feeble circulation, and general congestion, with an almost orange color of skin and conjunctiva; constipation, enlarged liver and spleen, etc. One-third of a grain of morphine was given, by hypodermic injection, to quiet extreme restlessness, and to temporarily relieve the *intense* nausea, and twenty grains of calomel given per orem, and forty grains of quinine per anum, together with large blisters over spleen, liver and duodenum.

The morphine promoted rest, and in two hours forty grains more of quinine were given in the same way. In due time the blister had the desired effect, and copious bilious discharges were had, reaction established, cerebral disturbance relieved, and the prognosis favorable.

Cinchonism with quinine per anum, was kept up for two days, after which time, the doses were lessened, *gradually*, until all febrile excitement abated.

The recurring periods of chills were anticipated with quinine, and she put upon tonic treatment of iron, quinine and strychnia, and grain doses of the proto-iodide of mercury, given as necessity required to prevent torpidity of the liver, with plenty of nutritious diet.

Our patient had a complete and speedy recovery. In this case, none of the hæmostatics were required to relieve the hemorrhage from kidneys, which is generally the case if the *real* cause of the trouble is promptly relieved in time. Only the hyposulphite of sodium was given in fifteen grain doses, three times a day, in water, until the kidneys acted normally. Frequently, however, it *is* necessary to give hæmostatics. Favorite ones are the chloride of iron, carbolic acid, ergot and gallic acid, separately. It is difficult to follow any special line of treatment, as we seldom find two cases alike, therefore, good judgment and the powers of discrimination are absolutely necessary for the successful treatment of this, as well as all other desperate diseases. The fearful death rate, caused by malarial hæmaturia, or malignant bilious fever (for it is nothing more), is attributable to the fact that treatment is generally delayed too long, after the attack, which is commonly ushered in by a chill, or rigor, (very common disorders in malarious districts). The cause of delay in treatment of this phase of disease, is *because* the attack is regarded as only an ordinary chill, and no premonition of malignancy noticeable at first.

The usual high fever after intermittents, is vainly expected, and no danger apprehended until the patient is in a hopeless stage of congestion and malarial stupor, or in a state of collapse, when it is too late to be benefitted by remedial agents in the hands of the most skillful physician.

Necrology.

JAMES B. UNDERWOOD, M. D.

Dr. James Banks Underwood, late President of the Floyd County Medical Society, was born in Elbert county, Georgia, on the 10th of September, 1810, and died in Cave Spring on the 6th of May, 1881, aged 71 years.

Dr. Underwood was the eldest son of Judge W. H. Underwood, a peculiarly gifted man, an eminent member of the Georgia bar and bench, whose brilliant thought and sparkling wit extended his name and reputation over the entire continent.

Having received the elementary training attainable in Georgia, in the earlier part of the century, Dr. Underwood entered upon the study of medicine in 1828, in the office of Dr. Freeman, of Cassville. In 1830, matriculated in Transylvania University, at Lexington, Kentucky, *alma mater* of many of the most distinguished medical men of the South, whence he was graduated in 1832.

Returning to Georgia whilst quite a young man, he settled in Cassville, Cass (now Bartow) county, having for his competitors and generous rivals in the profession, Hamilton, Young and Miller, a trio of brainy thinkers, who have made their impress upon the medical history of the State, and whose friendship and esteem he won and retained through life. In 1854, desiring to extend the

sphere of his professional labors, he removed to Rome, where he soon built up a large and successful business, numbering among his patrons many of the best citizens of the town and county.

During the late war he was assigned to professional duty in connection with the army, which occupied his attention until the close, when he retired to a farm, in Lowndes county, and gave practical illustration of his desire to aid in rebuilding the ruins of Georgia by putting his own hands to the plow handles. Two years subsequent he returned to his practice in Rome. Advancing in age, and tiring of the conflicts of busy life, desiring rest and quiet, with enjoyment of cultivated society and healthful surroundings, he spent the evening of his life at Cave Spring, where he accepted the position of physician of the Deaf and Dumb Asylum of Georgia. Here, ripe in age, worn down by multiplied and useful labors in the cause of our common humanity, surrounded by many sympathizing friends, lulled by the rippling waters which sparkle in their silvery brightness as they gush forth from the hidden depths of one of natures wonderful subterraneous caverns, his brow fanned by refreshing breezes of the early summer, he sank into a long sleep, and ere his anxious and weeping friends were apprised of the fact, he had already awakened in the full glories of a blessed immortality.

Of Dr. Underwood's traits of personal character, three are worthy of especial mention:—

1st. His sparkling wit and extraordinary conversational powers. In this respect he was the worthy son of a peculiarly gifted sire. He constituted a central figure in

every social group in which he might chance to find himself.

2d. A most tender and sympathetic heart, melting at times into tears; now, half-obscured by his natural impetuosity, and again, seemingly hidden beneath the rich profusion of his kindly meant, but sometimes keenly felt sallies of wit. So ready was he to apply the healing balm of loving kindness to all these punctures, no one could bear him malice or set down aught in anger to his just charge.

3d. His sincerity and devoted friendship, which gathered around him through life a large circle of friends, who not only admired his gifts, and were entertained by his generous flow of thought and word, but who loved him, and were ever ready to do him both honor and substantial service.

ROBERT BATTEY.

EZEKIEL L. CRUMP, M. D.

Dr. E. L. Crump was born in Emanuel county, Georgia, May 20th, 1840, and died at his home in Burke county, July 24th, 1881.

He, together with his four brothers, promptly volunteered their services at the opening of the Confederate war, and its close found him only survivor of the five. No braver soldier, no truer comrade, faced the dangers or endured the sufferings of the war. After its close, not being satisfied with his literary attainments, he devoted

himself for a while to the studies left off when he so nobly yielded to the cry, "To arms!"

To his more intimate friends, he sometimes spoke with regret that he was not the possessor of a more finished education; but this defect was felt more by himself than perceived by others. Endowed with indomitable energy, he overcame, by close application and laborious study, whatever defects there may have been in his early education.

He was twice married; first to Miss Susie Sample, of South Carolina, December 23d, 1868, and next, February 20th, 1873, to her sister, Miss Anna A. Sample.

He attended his first course of lectures in Augusta, 1866–'67, and graduated at the close of the second session in Charleston. It was there that he fairly commenced his life of laborious study and arduous work. Entering immediately upon the active duties of a practitioner of medicine, he soon acquired a very extensive practice, which he retained till his death. A close observer, he diagnosed well, and never hesitated to act promptly on the dictates of his judgment. As a surgeon he was bold and fearless, yet cautious, and had acquired considerable local reputation in this branch of his profession.

He was in many respects an illustration and example to those similarly situated in early life, of what native talents unaided by early advantages can do, supported by untiring industry and a will which difficulties and obstacles never frightened. But he had his fatal error,—which was in the extravagant use of the superior faculties, mental and physical, which nature had given him. To a passionate fondness for all the sports of the field, he joined the

exhausting habits of the student, and that his books should have all the hours required by ambition, the "midnight lamp made artificial day," so that body and mind, together overworked, succumbed to the unnatural strain, and he passed away in the 41st year of his age, in the mid-day of his manhood and usefulness, regretted deeply by the entire community, and by no class more than his professional brethren.

A. W. CARSWELL, M. D.

ISAAC N. VAN METER, M. D.

Dr. Isaac Newton Van Meter was born in Martinsburg, Virginia, February 2d, 1835, and died in Bartow county, Georgia, September 19th, 1881.

He was a graduate of the Nashville Medical College; was a Surgeon in the United States army during the late war. He came to Bartow county in 1866, bought a beautiful farm, surrounded himself with the conveniences of a most comfortable home, and thus identified himself with the people among whom he had settled. He still farther strengthened the ties which bound him to his new home by leading to the marriage altar, on the 16th of last February, Miss E. R. Jolly, the beautiful and accomplished daughter of his neighbor, Mr. Levi Jolly. Successfully engaged in agricultural pursuits and the practice of his profession, quietly and happily situated in all his surroundings, loved by his entire neighborhood, and re-

spected by all who knew the qualities of his mind and heart, especially endeared to the poor by his many charities and unceasing care for their welfare, no man seemed to have a brighter or more prosperous future before him.

He had been quite sick for several days before his sad death, and on the evening preceding the accident causing his death, he was parched with fever, and more or less delirious from its effects. He had about this time become aware of the unsafe condition of the box around the well, which was situated a short distance from the front of his dwelling house. He became very apprehensive that some children, who were in the habit of playing near by, would lose their lives by its insecurity. His thoughts seemed to dwell upon its dangers, and he talked constantly of the necessity of repairing the well at once.

In the night, delirious with fever and thirst, he left his bed, and going out into the front yard, near this well, was evidently attracted to it, and while attempting to make it safe for others, unintentionally, and without design, lost his own life.

There was no known cause for the attempt of suicide; there were no premonitory symptoms of such intention, all his temporal horizon was without a cloud. He was a man of prayer, loved and studied the Bible, compared his life to its sacred precepts, and intended to unite with the church in a few days, had not his untimely death prevented.

His memory will be tenderly enshrined in the hearts of all who knew and loved him.

Written by Hon. W. H. FELTON, M. D.

THOMAS W. GRIMES, M. D.

Dr. Thomas W. Grimes died suddenly of heart disease, at his home in Columbus, Georgia, on December 12th, 1882, in the 73d year of his age.

Dr. Grimes was born in Greenesboro, Ga., August 18th, 1809. He received his degree of Doctor of Medicine from the Medical College of Georgia, at Augusta, being a member of the first class that ever graduated at that institution. He practiced his profession at the place of his nativity until 1849, when he removed to Columbus, where he has since resided, actively engaged, till the hour of his death, in the discharge of the duties which devolved upon him as a physician. He has been a member of the Medical Association of Georgia since 1855.

Dr. Grimes had many friends throughout the State, to whom the announcement of his death brought a pang of sincere regret. He will be greatly missed in the community where, for more than thirty years, he has led a quiet, unostentatious and useful life, exemplifying in his daily walk the true Christian, the faithful friend, the loyal citizen, and the kind physician. He was interred in Columbus, by the side of his wife, who preceded him to the grave only a few months.—*January No. Atlanta Medical Register.*

W. L. WILLIAMS, M. D.

Dr. W. L. Williams was born in Coweta county, Georgia, March 30th, 1835, and died in Fayetteville, Fayette county, Georgia, July 17th, 1878. He completed his medical course in Atlanta, just before the commencement of the late war, and before he had fairly commenced the practice, duty called him to the army of Virginia, where he remained, both in ranks and as Surgeon, until the close of the war. In 1865 he located in Fayetteville, Georgia, and soon became a useful and popular physician, and there remained until his death.

JOSEPH S. SIMMONS, M. D.

Dr. Joseph Sandford Simmons was the son of Wm. H. and Elizabeth Simmons, and was born and reared in Pike county, Georgia, and died in Campbell county, Georgia, March 27th, 1881, in the 51st year of his age.

He read medicine with his brother-in-law, Dr. Lewis Sessions, then of Pike county, Ga., now of Marion Springs, Ala. He graduated at Nashville Medical College in the spring of 1859. In the winter of the same year he was married to a lady of the same name, though no relation, Miss Sallie F. Simmons. Mrs. Simmons, with their five

children, is now living in Atlanta. He subsequently moved to Macon county, Ala., and practiced medicine until the spring of 1861, when he entered the Confederate service as a private, and fought under Stonewall Jackson in his campaigns in Virginia, though he was often detailed as Assistant Surgeon, and was eventually commissioned as Assistant Surgeon, in the 9th Florida regiment, where he remained until the surrender, and then he returned to the practice of his profession in Alabama.

He moved to Gainesville, Ga., in 1869, and practiced medicine there until 1879, when he moved to Fayetteville, Fayette county, Ga., where he continued the practice of medicine for a year and a half, and then he was taken sick. He always had bronchial trouble, and had pneumonic attacks a number of times; for this reason he left the rigorous climate of North Georgia and moved to Middle Georgia—where he thought he was improving, when his disease resulted in dropsy, and he was confined to his bed one year. Dr. Paul Faver, of Fayette county, and Dr. R. W. Westmoreland, of Atlanta, and others attended him in his sickness. He loved his profession, and was especially conscientious in regard to professional etiquette.

In every community that he lived in, he sustained the character of a moral, Christian man; was a member of the M. E. Church South since his early manhood. He suffered much in his last sickness—looked death in the face for one year, and did not fear it or complain at his Creator.

A. BYRON COPELAND, M. D.

The following tribute to Dr. Copeland, a member of this Association, is republished here in accordance with the third resolution. We think it well to preface it with the accompanying note from his former associate, as a further tribute to his memory.—Sec.

HAMILTON, GA., August 18, 1882.

Dr. A. SIBLEY CAMPBELL, Augusta, Ga.:

Dear Doctor:—By request of our Society, I here hand you a notice of the death of my late, and loved partner, Dr. A. B. Copeland. We desire you, if possible, to have this notice copied in our this year's Medical Transactions. He was a devoted and valuable member, and was preparing an essay on tuberculosis, to be read at our next meeting in Athens, next year. He was a young man of great merit and bright promise, of much usefulness, beloved by all.

Yours, truly, THOS. S. MITCHELL.

RESOLUTIONS ADOPTED BY THE HARRIS COUNTY MEDICAL SOCIETY ON THE DEATH OF DR. A. B. COPELAND, VICE-PRESIDENT OF THE SOCIETY.

WHEREAS, an All-wise Providence has seen fit to remove by death Dr. A. B. Copeland, our highly esteemed and beloved brother, Vice-President of our Society; be it therefore resolved,

First. That in the death of Dr. A. B. Copeland, not only the community in which he lived but the country at large has lost one of her most eminent and useful physicians. Although a young practitioner, having been engaged in the profession but a few years, he had, by his indomitable energy, superior skill and benevolent heart, won for himself a reputation that but few have attained at his age. As a friend he was ever kind and true, as a citizen ever alive to the interest of his country and as a physician ever ready to attend the call of the sick and afflicted, and with tender care to soothe and watch over them. Whether in the home of affluence, or the hut of poverty, Dr. Copeland was always the kind physician and sympathising friend.

Second. That in his death our Society has lost one of its best and most useful members, and the medical fraternity one of its brightest ornaments; and with heavy hearts we extend our deepest sympathy to the bereaved family and friends of our deceased brother, and especially we condole with the grief-stricken young wife and child whom a divine Providence has afflicted so sorely.

Third. That a copy of these resolutions be furnished the family of our deceased brother, and the same be spread upon the minutes of our Society; also, that a copy be furnished the Secretary of the Medical Association of Georgia, the *Hamilton Journal* and the Columbus papers, with a request to publish.

J. E. GELLESPIE, M. D.
S. G. RILEY, M. D.
THOS. S. MITCHELL, M. D.
Committee.

CONSTITUTION AND BY-LAWS

OF THE

MEDICAL ASSOCIATION OF GEORGIA.

CONSTITUTION.

(ADOPTED 1873.)

ARTICLE I.

NAME.

The name and style of this Association shall be, "THE MEDICAL ASSOCIATION OF GEORGIA."

ARTICLE II.

OBJECTS.

SECTION 1. The objects of this Association shall be, to organize the medical profession of the State in the most efficient manner possible; to encourage a high standard of professional qualifications and ethics; and to promote professional brotherhood.

ARTICLE III.

MEMBERS.

SECTION 1. There shall be only one class of members in this Association. Every regularly educated medical man within the limits of this State, who is a graduate of a regular Medical College in good standing, and who adopts and conforms to the Code of Ethics of the American Medical Association, shall be eligible to membership in this body.

ARTICLE IV.

OFFICERS.

SECTION 1. The officers of the Medical Association of the State of Georgia shall be as follows: 1st. One President; 2d. Two Vice-Presidents; 3d. One Secretary; 4th. One Treasurer; 5th. Five Censors.

SEC. 2. The President shall be elected for one year; the Vice-Presidents for one year; the Secretary for five years; the Treasurer for five years,—but every officer shall continue in office until his successor is duly elected and installed in office.

SEC. 3. The Board of Censors shall be elected at the present session by the Association—one for a period of five years, one for four years, one for three years, one for two years, one for one year; and annually hereafter the vacancy occurring in the Board of Censors shall be filled by election.

ARTICLE V.

PRESIDENT.

SECTION 1. The President shall be the chief executive officer of the Association. He shall preside at all the meetings of the body, preserve order, and give the casting vote, when necessary, and perform such other duties as parliamentary usage imposes on presiding officers.

SEC. 2. He shall prepare and deliver, at the opening of each annual session, an address on some subject connected with the interests and objects of this Association.

SEC. 3. He shall appoint annually the requisite number of delegates to the American Medical Association, and to such other scientific bodies as it may be expedient to have this Association represented in.

SEC. 4. He shall appoint an orator, whose duty it shall be to prepare and deliver a public address on some subject connected with medicine or the medical profession, at the next annual meeting after his appointment.

SEC. 5. He shall, in the intervals between the annual sessions, direct and control the general policy and business of the Association, but always with careful attention to the precedents and customary usages of the Association, and to its constitutional provisions.

ARTICLE VI.

VICE-PRESIDENTS.

SECTION 1. The Vice-Presidents, in their order, shall, in case of the absence or the death of the President, discharge all the duties belonging to the presidential office.

ARTICLE VII.

SECRETARY.

SECTION 1. The Secretary shall have charge of all the books, papers, and records of the Association, except those belonging to the office of Treasurer.

SEC. 2. He shall record the minutes of the Association at all its sessions.

SEC. 3. He shall conduct the correspondence of the Association under the direction of the President, and shall be Chairman of the Publishing Committee.

SEC. 4. He shall keep the roll of the members of this body who have retained their membership by compliance with the provisions of this Constitution, and also the names of those who have forfeited membership, together with the cause of such forfeiture.

SEC. 5. In the absence of the Treasurer he shall collect the usual dues of the members in attendance at the regular sessions.

SEC. 6. The necessary expense incurred by the Secretary, in attending the annual sessions, shall be defrayed out of the funds of the Association.

ARTICLE VIII.

TREASURER.

SECTION 1. The Treasurer shall collect the annual dues and have custody of all the moneys belonging to the Association, and shall respond to the calls of the Secretary by order of the President, as far as he may have funds in his possession.

SEC. 2. He shall make annual reports of the financial condition of the Association, and the several amounts received during the year, and from whom; the several amounts due by the Association—if any—to whom, and

on what account, the several amounts due to the Association—if any—by whom, and on what account.

SEC. 3. The necessary expense incurred by the Treasurer, in attending the annual sessions, shall be paid out of the funds of the Association.

ARTICLE IX.

CENSORS.

SECTION 1. The Board of Censors shall hold annual meetings, concurrently with the annual sessions of the Association, to whom shall be referred all applications for membership, with vouchers from two members, and in such case their decision shall be reported to the body for action. Three of their number shall constitute a quorum, and the Chairman and Secretary shall be designated by the President.

SEC. 2. They shall take cognizance of all offenses against the Association or its Code of Ethics, and shall be authorized to strike from the list of membership all violators of its regulations, and shall report the names of the individuals and the offense for which action has been taken immediately to the Association, at which time, or at the next succeeding meeting, all such individuals may have the right of appeal to that body.

SEC. 3. In the event of a failure of a quorum of the Board of Censors to attend at any annual meeting, it shall be the duty of the President to supply the vacancy by a temporary appointment.

ARTICLE X.

FINANCES.

SECTION 1. Every member of the Association shall pay annually into the Treasury such sum as the Association may determine; which amount, it is expected, will be paid during the session of the body.

ARTICLE XI.

CONSTITUTION.

SECTION 1. The Constitution shall take immediate effect from its adoption.

SEC. 2. The By-Laws now in operation, and Order of Business are adopted so far as they agree with the new Constitution.

ARTICLE XII.

ANNUAL MEETING.

The annual meeting shall take place on the third Wednesday in April, and at such place as shall be designated by a majority of the Association.

ARTICLE XIII.

AMENDMENTS.

Any amendment that may be offered to the Constitution, shall lie over until the next annual meeting; and for its adoption at said meeting, shall require a two-thirds vote of all present and voting.

BY-LAWS.

(ADOPTED 1875.)

ORDER OF BUSINESS.

The order of business of this body, unless altered by a two-thirds vote of the members, shall be as follows:

1. Calling the Association to order by the President, or, in case of his absence, by one of the Vice-Presidents.
2. Report of Committee of Arrangements.
3. President's Address.
4. Reading notes from absentees.
5. Election of members.
6. Reports of special committees.
7. Report of Committee on Publication.
8. Report of Committee on Necrology.
9. Report of Sections for Congressional Districts. [To be read by title and held subject to call of the Association.]
10. Voluntary Communications. [To be read by title and held subject to call of the Association.]
11. Appointment of Nominating Committee by the President. [This committee shall consist of one member from each county represented in the meeting. It shall nominate officers, standing committees, and the Sections for Congressional Districts. Their report shall be subject to the action of the Association.]
12. Selection of place for next annual meeting.
13. Unfinished business.
14. New business.
15. Report of Nominating Committee.
16. Appointment of Orator by the President.

STANDING COMMITTEES.

The Committee of Arrangements shall consist of five members who reside at the place selected for the ensuing meeting. It shall be their duty to provide suitable accommodations for the meetings of the Association, and to

superintend the registration of the members in attendance.

The Committee on Publication shall consist of four members in addition to the Secretary, who is chairman *exofficio*. They shall provide for the publication of the minutes of the session, together with such papers as are deemed worthy. They shall also append to each volume of the Transactions a copy of the Constitution and By-Laws of the Association, roll of membership, and Code of Ethics of the American Medical Association.

The Committee on Necrology shall consist of five members, whose duty it shall be to procure memorials of deceased members, and present them for publication in the Transactions.

SECTIONS.

Three members from each Congressional District shall be appointed as a Section on Surgery, three a Section on Practice of Medicine, and three a Section on Gynecology. It shall be the duty of these sections to present, annually, to the Association, a report on the subjects connected with their respective departments.

ASSESSMENTS.

Each member shall pay annually to the Treasurer such sum as the Association may determine.

OFFICERS—TIME OF ASSUMING THEIR DUTIES.

The Secretary and Treasurer shall enter upon the duties pertaining to their offices at the time of their election; the President, Vice-Presidents and Censors, at the commencement of the annual meeting succeeding their election.

AMENDMENTS.

I.

APPLICANTS FOR MEMBERSHIP.

The names of all applicants for membership shall be first presented to the Association in body, and then referred to the Board of Censors. [See, also, duties of Censors—Constitution, Art. ix., Sec. 1.]

II.

INITIATION FEE.

An initiation fee of *five dollars* shall be required of every new member hereafter elected into the Association; which fee must accompany the application for membership.

III.

ANNUAL ASSESSMENT.

The annual assessment of every member of the Association shall be *three* dollars.

IV.

MEMBERS IN ARREARS.

The name of any member who shall fail for two consecutive years to pay the annual assessment, shall be dropped from the roll of membership, the Treasurer first notifying such member of the state of his account.

V.

TREASURER'S CALL FOR DUES.

The Treasurer shall, immediately after the meeting of the Association, issue a call for the dues of absent members, by postal card, impressing upon them the need of prompt payment of the small assessment herein provided, by every member of the Association, and notifying them of the constitutional provision requiring the names of delinquents to be stricken from the roll of membership by the Secretary.

VI.

LIFE-MEMBERSHIPS.

The assessment for life-membership shall be *thirty* dollars, exempting from annual dues. The sum so received to be invested and the interest used to pay annual dues of said life-member. A member may hold as many life-memberships as he desires, and shall be entitled to one vote for each.

VII.

PAPERS FOR PUBLICATION.

1. All papers intended to be published in the Transactions of this Association, shall be placed in possession of the Secretary within two weeks after adjournment.

2. Any paper presented to the Association, and recommended for publication by the Committee, shall not be published in any journal until the Secretary shall return it, announcing that the Committee on Publication decides that no Transactions will be issued.

VIII.

AMENDMENTS.

Any change in these By-Laws can only be made by a vote of two-thirds of all members present.

ROLL OF MEMBERS

OF THE

MEDICAL ASSOCIATION OF GEORGIA,

1882.

ABBREVIATIONS.——P., President; V-P., Vice-President; S., Secretary; C-S., Corresponding Secretary; T., Treasurer; O., Orator; C., Censor,—indicating the offices the member holds or has held.

☞ *Members are particularly requested to notify the Secretary promptly on making any change in their Post Offices.*

☞ *The Secretary will esteem it a favor if any member will write to him at once on noticing any inaccuracy or omission in the roll.*

NAME.	POST OFFICE.	COUNTY.	ADMITTED.
ALEXANDER, L. B.	Forsyth	Monroe	1877
Alexander, Jas. F. (T., C., V-P.)	Atlanta	Fulton	1849
Allen, J. E.	Augusta	Richmond	1880
Alfriend, E. W. (V-P.)	Albany	Dougherty	1852
Anderson, R. B.	Roswell	Cobb	1872
Anderson, W. A. J.	Oxford	Newton	1873
Armstrong, W. S.	Atlanta	Fulton	1866
BAILEY, J. W.	Gainesville	Hall	1861
Baird, Jas. B. (S.)	Atlanta	Fulton	1872
Baker, A. H.	Augusta	Richmond	1876
Ballinger, M. R.	Floyd Springs	Floyd	1860
Bardwell, E. L.	Talbotton	Talbot	1872
Barnett, J. W.	Raytown	Taliaferro	1880
Battey, H. H.	Rome	Floyd	1882
Battey, Robert (C., P.)	Rome	Floyd	1859

NAME.	POST OFFICE.	COUNTY.	ADMITTED.
Battey, W. W	Augusta	Richmond	1876
Battle, R. J	Cass Station	Bartow	1879
Bell, A. A	Madison	Morgan	1858
Bivings, J. C	Dalton	Whitfield	1873
Bizzell, W. D	Atlanta	Fulton	1882
Blincoe, A. G	Atlanta	Fulton	1882
Boring, Jno. M. (V-P.)	Atlanta	Fulton	1856
Bouchelle, L. B	Thomasville	Thomas	1875
Bozeman, E. K	Americus	Sumter	1877
Brantley, S. D	Sandersville	Washington	1849
Brown, A. P	Atlanta	Fulton	1859
Brown, R. M	Toombsboro	Wilkinson	1882
Bruce, W. N	Bainbridge	Decatur	1874
Bruce, W. W	Thomasville	Thomas	1881
Bullard, W. L	Tennille	Washington	1882
CALHOUN, A. B	Newnan	Coweta	1874
Calhoun, A. W. (V-P., C.)	Atlanta	Fulton	1874
Calhoun, F. R. (V-P.)	Euharlee	Bartow	1873
Callaway, J. A	Milledgeville	Baldwin	1882
Campbell, A. Sibley (O., S.)	Augusta	Richmond	1876
Campbell, H. F. (O., V-P., P.)	Augusta	Richmond	1851
Campbell, Robert	Augusta	Richmond	1849
Carlton, J. M	Athens	Clarke	1882
Carswell, A. W	Herndon	Burke	1880
Chappell, T. A	Powers	Terrell	1877
Charlton, T. J. (C.)	Savannah	Chatham	1869
Clements, J. W	Subligna	Chattooga	1879
Colding, C. H	Hawkinsville	Pulaski	1882
Coleman, Jno. S. (C.)	Augusta	Richmond	1868
Coleman, J. T	Perry	Houston	1851
Connally, E. L. (C.)	Atlanta	Fulton	1860
Cooper, Geo. F. (C-S., V-P.)	Americus	Sumter	1849
Cotter, R. O	Atlanta	Fulton	1882
Crawford, G. G. (V-P.)	Atlanta	Fulton	1859
Culbertson, W. A	Cave Spring	Floyd	1859
Culpepper, J. T	Boston	Thomas	1881

NAME.	POST OFFICE.	COUNTY.	ADMITTED.
DEADWILER, M. P.	Elberton	Elbert	1868
Divine, K. C	Atlanta	Fulton	1882
Dekle, Thos. S.	Thomasville	Thomas	1874
Dostor, B. R. (V-P.)	Blakely	Early	1873
Doughty, W. H. (C.)	Augusta	Richmond	1857
Doughty, W. H., Jr	Augusta	Richmond	1880
Dozier, J. A	Wrightsboro	McDuffie	1873
Dugas, Geo. C.	Augusta	Richmond	1880
Dugas, L. A. (P.)	Augusta	Richmond	1852
Duncan, William (T.)	Savannah	Chatham	1868
EARLE, E. C.	Marietta	Cobb	1882
Earnest, J. G	Atlanta	Fulton	1882
Elkin, W. S	Atlanta	Fulton	1882
Elliott, W. H	Savannah	Chatham	1881
Evans, W. W	Oxford	Newton	1872
Eve, J. A. (P.)	Augusta	Richmond	1852
Eve, R. C	Augusta	Richmond	1868
Eve, S. C	Augusta	Richmond	1868
FAVER, PAUL	Fayetteville	Fayette	1873
Ferguson, E. G.	Macon	Bibb	1882
Fitts, W. W	Carrollton	Carroll	1878
Fitzgerald, E	Macon	Bibb	1882
Ford, DeSaussure (V-P., P.)	Augusta	Richmond	1857
Ford, L. D. (P.)	Augusta	Richmond	1849
Foster, Eugene (V-P.)	Augusta	Richmond	1875
GAITHER, HENRY	Oxford	Newton	1851
Gay, D. E	Herndon	Burke	1875
Gercke, R. O.	Augusta	Richmond	1876
Gerdine, John	Athens	Clarke	1882
Goodrich, E. C. (T.)	Augusta	Richmond	1876
Gordon, C. P.	Dalton	Whitfield	1861
Goss, I. H.	Fort Lamar	Madison	1877
Gray, J. A.	Atlanta	Fulton	1882

NAME.	POST OFFICE.	COUNTY.	ADMITTED.
Gray, S. H	Forsyth	Monroe	1871
Green, J. G	Rock Mart	Polk	1879
Griggs, A. W. (O., V-P.)	West Point	Troup	1866
Griggs, J. W	West Point	Troup	1878
Grimes, Geo. J	Columbus	Muscogee	1872
HALL, CHARLES H, (C.)	Macon	Bibb	1870
Hall, Kenan	Macon	Bibb	1881
Hall, W. H	Milledgeville	Baldwin	1872
Hamilton, J. L	Stone Mountain	DeKalb	1859
Hammond, D. W. (V-P.)	Macon	Bibb	1854
Harden, W. P	Smyrna	Cobb	1859
Hardman, L. G	Harmony Grove	Jackson	1877
Harris, M. W	Perry	Houston	1853
Hatton, Joseph	Grovetown	Columbia	1876
Hatch, M. G	Tennille	Washington	1880
Hawkins, S. B. (V-P.)	Americus	Sumter	1871
Haynes, M	Red Clay	Whitfield	1879
Hickman, C. W	Augusta	Richmond	1880
Hill, J. J	Washington	Wilkes	1880
Hilsman, P. L	Albany	Dougherty	1871
Hitt, V. G	Augusta	Richmond	1870
Hobbs, A. G	Atlanta	Fulton	1882
Hollingsworth, W. T	Madison	Morgan	1857
Holmes, G. W. (V-P., P., C.)	Rome	Floyd	1867
Holmes, J. B. S	Rome	Floyd	1872
Holt, William F. (V-P., P.)	Macon	Bibb	1867
Hopkins, J. G	Thomasville	Thomas	1874
Hopkins, T. S	Thomasville	Thomas	1873
Houston, J. P. S	Savannah	Chatham	1873
Howell, D. H	Atlanta	Fulton	1878
Hoyt, W. D	Rome	Floyd	1871
Hull, J. M	Augusta	Richmond	1882
Humphries, J. R	Acworth	Cobb	1876
Hunter, E. H. W	Louisville	Jefferson	1857

NAME.	POST OFFICE.	COUNTY.	ADMITTED.
JANES, J. W.	Rome	Floyd	1879
Jarnagin, W. C.	Atlanta	Fulton	1882
Jelks, N. P.	Hawkinsville	Pulaski	1882
Johnson, H. V.	Bartow	Jefferson	1874
Johnson, J. C.	Macon	Bibb	1875
Johnson, Jno. M.	Atlanta	Fulton	1866
Johnson, J. Thad. (O., S., P.)	Atlanta	Fulton	1871
Joiner, B. L.	Andersonville	Sumter	1882
Jones, L. M.	Gordon	Wilkinson	1880
Jordan, F. M.	Hawkinsville	Pulaski	1878
Jordan, M. G. W.	Culloden	Monroe	1874
KENAN, THOS. H., (V-P.)	Milledgeville	Baldwin	1875
Kendrick, W. S. (O.)	Dirt Town	Chattooga	1874
LALLERSTEDT, T. L.	Panola	DeKalb	1868
Lane, J. A.	Washington	Wilkes	1880
LeHardy, Henry	Ascalon	Walker	1875
LeHardy, J. C. (T., V-P., P.)	Savannah	Chatham	1868
Leitner, C. B.	Columbus	Muscogee	1852
Logan, A. J.	Americus	Sumter	1882
Logan, J. P. (P.)	Atlanta	Fulton	1857
Longino, T. D.	Palmetto	Campbell	1871
Love, Wm. Abram (V-P.)	Atlanta	Fulton	1866
MAGRUDER, A. L. C.	Macon	Bibb	1870
Mallette, M. R.	Boston	Thomas	1881
Martin, Jno. D.	Savannah	Chatham	1867
Mathis, A.	Sandersville	Washington	1872
McCleskey, G. L.	Athens	Clarke	1857
McIntosh, T. M. (V-P.)	Thomasville	Thomas	1875
McMillan, Jno. E.	Columbus	Muscogee	1872
Means, A. (V-P.)	Oxford	Newton	1851
Milam, R. J.	Fairburn	Campbell	1882
Miller, Geo. T.	Byromville	Dooly	1879
Miller, H. V. M.	Atlanta	Fulton	1851

NAME.	POST OFFICE.	COUNTY.	ADMITTED.
Mitchell, D. L.	Rock Spring	Walker	1879
Mitchell, Thos. S.	Hamilton	Harris	1872
Moore, K. P. (V-P., O., T., P.)	Forsyth	Monroe	1871
Moore, J. T.	Whitesburg	Carroll	1878
Moore, W. C.	Clarkston	DeKalb	1861
Morgan, Y. H.	Cochran	Pulaski	1871
NASH, J. D.	Lovejoy	Clayton	1878
Nicolson, William P.	Atlanta	Fulton	1830
Nisbet, R. B.	Eatonton	Putnam	1853
Norton, R. G.	Egypt	Effingham	1872
Nunn, R. J.	Savannah	Chatham	1867
O'BRIEN, F. H.	Atlanta	Fulton	1882
O'Daniel, M. H.	Bullards	Twiggs	1882
O'Daniel, Wm. (T., P.)	Bullards	Twiggs	1870
Olmsted, J. C.	Atlanta	Fulton	1878
Owen, W. G.	Atlanta	Fulton	1868
PARKS, W. B.	Atlanta	Fulton	1882
Pate, R. H.	Snow	Dooly	1879
Perkins, J. O.	Atlanta	Fulton	1878
Perry, A. C.	Covington	Newton	1878
Philpot, W. H.	Talbotton	Talbot	1857
Pinson, A. J.	Atlanta	Fulton	1878
Pope, J. E.	Athens	Clarke	1876
Powell, T. O.	Milledgeville	Baldwin	1867
Powell, T. S. (V-P.)	Atlanta	Fulton	1857
RAINES, THOMAS	Atlanta	Fulton	1872
Rains, T. L.	Atlanta	Fulton	1882
Read, J. B.	Savannah	Chatham	1851
Redding, J. H.	Macon	Bibb	1882
Richardson, E. H., Jr. (O.)	Cedar Town	Polk	1878
Roach, E. J.	Atlanta	Fulton	1857
Roach, J. E.	Douglasville	Douglas	1882
Roach, E. W.	Atlanta	Fulton	1882

NAME.	POST OFFICE.	COUNTY.	ADMITTED.
Roberts, J. B.	Sandersville	Washington	1875
Robertson, S.	Dallas	Paulding	1881
Roy, G. G.	Atlanta	Fulton	1878
Rusk, W. J.	Clarkesville	Habersham	1869
SAMPLE, C. L.	Cannoochee	Emanuel	1875
Scott, H. F. (O.)	Atlanta	Fulton	1879
Searcy, D. B.	Bolingbroke	Monroe	1849
Selman, J. L.	Douglasville	Douglas	1882
Shaw, T. M.	Coosaville	Floyd	1878
Shefftal, B. F.	Savannah	Chatham	1878
Shi, A. H.	Pataula	Stewart	1860
Simpson, C. A.	Roswell	Cobb	1871
Slappey, J. G.	Buzzard Roost	Twiggs	1875
Slaughter, J. T.	Villa Rica	Carroll	1859
Smith, A. A.	Hawkinsville	Pulaski	1875
Smith, C. D.	Newnan	Coweta	1872
Smith, G. F.	Cartecay	Gilmer	1874
Smith, Hiram	Augusta	Richmond	1876
Smith, J. B.	Perry	Houston	1870
Stanford, F. A.	Columbus	Muscogee	1849
Steiner, H. H.	Augusta	Richmond	1857
Sterling, W L.	Atlanta	Fulton	1878
Stevens, J. P.	Macon	Bibb	1873
Stone, Geo. H.	Savannah	Chatham	1875
Stout, S. H. (S.)	Comanche	[Texas]	1866
Strother, Wm. A.	Albany	Dougherty	1867
TALIAFERRO, V. H. (V-P.)	Atlanta	Fulton	1857
Talley, H. M.	Nashville	Berrien	1875
Taylor, A. P.	Thomasville	Thomas	1873
Taylor, A. R.	Hawkinsville	Pulaski	1878
Taylor, J. P.	Senoia	Coweta	1859
Taylor, R. H.	Griffin	Spalding	1879
Thomas, J. G. (V-P., C., P.)	Savannah	Chatham	1867
Tidwell, P. M.	Fairburn	Campbell	1859

NAME.	POST OFFICE.	COUNTY.	ADMITTED.
Todd, J. S. (o.)	Atlanta	Fulton	1872
Twitty, W. W	Camilla	Mitchell	1874
WADE, R. M	Athens	Clarke	1882
Walker, T. F	Cochran	Pulaski	1859
Walker, T. D	Cochran	Pulaski	1882
Waring, J. J	Savannah	Chatham	1853
Wells, W. B. (c., v-p.)	Red Clay	Whitfield	1873
Westmoreland, W. F. (p.)	Atlanta	Fulton	1856
Wethington, R. T	Thomasville	Thomas	1881
Whitaker, J. M	Milledgeville	Baldwin	1881
Whitehead, A. G	Waynesboro	Burke	1869
Whitley, T. R	Atlanta	Fulton	1882
Wirsen, G. F	Rutledge	Morgan	1871
Wisdom, F. L	Buena Vista	Marion	1873
Wood, W. S	Camilla	Mitchell	1881
Word, R. C	Atlanta	Fulton	1855
Word, T. J. (v-p.)	Rome	Floyd	1874
Wright, A. W	Cave Spring	Floyd	1879
Wright, P. H	Macon	Bibb	1869
Wright, Thomas R	Augusta	Richmond	1880

In Memoriam.

☞ SPECIAL REQUEST TO EVERY MEMBER.—The Secretary *earnestly requests each member of the Association* to aid him *in filling* THE BLANKS in the following Roll of Deceased Members, *by making the necessary inquiries* in their respective cities and counties, *and writing him at once* on obtaining the desired information.

NAME.	POST OFFICE.	COUNTY.	ADMITTED.	DIED.
Adams, C. B.	Augusta	Richmond.	1868	1875
Alexander, J. R		Floyd	1849	
Arnold, R. D. (V-P., P.)	Savannah	Chatham.	1849	1876
Avery, J. C.	Decatur	DeKalb	1859	1873
Banks, J. T. (V-P., P.)	Spalding	Griffin	1858	1880
Barkwell, T. J	Hawkinsville	Pulaski	1859	
Battle, H. L.	Russellville	Monroe	1849	
Bell, T. W.	Busbyville	Houston	1853	
Bignon, H. A	Augusta	Richmond	1852	1870
Billing, S. A.	Columbus	Muscogee	1855	1872
Black, R. C. (T.)	Augusta	Richmond.	1852	1860
Bomar, B. F.	Atlanta	Fulton	1859	
Boswell, S. J. (V-P.)	Columbus	Muscogee	1855	
Bothwell, D. J.	Vienna	Dooly	1849	
Bozeman, J. F.	Atlanta	Fulton	1855	1877
Brandon, D. S.	Thomasville	Thomas	1873	1878
Broadhurst, W. W.	Augusta	Richmond	1852	1861
Bruce, R. J	Thomasville	Thomas	1874	1880
Bunn, William	Wilna	Houston	1854	
Burgess, William R. (T., O.)	Macon	Bibb	1870	1878
Carroll, J. C.	Laurens Hill	Laurens	1857	1870
Carroll, R. C.	Augusta	Richmond	1873	1882

NAME.	POST OFFICE.	COUNTY.	ADMITTED.	DIED.
Castlen, F. G	Macon	Bibb	1867	1874
Charters, W. M. (P.)	Savannah	Chatham	1851	1883
Chase, D. S	Augusta	Richmond	1852	
Clark, S. B	Richmond Fact'ry	Richmond	1852	
Coe, J. N	Flat Rock	Pike	1856	
Colley, F. S. (P.)	Monroe	Walton	1856	
Copeland, A. B	Hamilton	Harris	1878	1882
Cornwall, G. H	Hillsboro	Jasper	1854	
Crawford, S. S	Augusta	Richmond	1857	
Crump, E. L	Herndon	Burke	1872	1881
Cumming, H. M	Augusta	Richmond	1868	1872
Cunningham, L. S	Big Creek	Forsyth	1859	1862
Cunningham, W. D	Jasper	Pickens	1859	1866
D'Alvigney, N	Atlanta	Fulton	1877	
Davenport, C. W	Point Peter	Oglethorpe	1852	
Davenport, H. S	Calhoun	Gordon	1859	
Davis, W. L	Albany	Dougherty	1849	
Dean, S. H	Conyers	Rockdale	1856	
Dearing, W. E	Athens	Clarke	1852	
DeCortez, C. A	Savannah	Chatham	1872	
Dickinson, J. T	Albany	Dougherty	1857	
Dickinson, R. Q. (V-P., P.)	Albany	Dougherty	1850	
Dupree, L. J	Camilla	Mitchell		
Felder, W. L	Augusta	Richmond	1857	1867
Fish, J. D. (T.)	Savannah	Chatham	1875	1879
Fort, Moses T	Hawkinsville	Pulaski	1859	1878
Franklin, M. A	Macon	Bibb	1849	1858
Frasier, W. M	Hawkinsville	Pulaski	1850	
Gaither, B. T	Oxford	Newton	1852	1853
Gardner, J. W	Augusta	Richmond	1857	
Girardey, Edward	Augusta	Richmond	1852	1859
Gordon, J. M	Savannah	Chatham	1849	
Green, A. B	Pond Town	Sumter	1849	
Green, H. K	Macon	Bibb	1849	1867
Green, Thomas F	Milledgeville	Baldwin	1849	1879
Gregory, J. D		Sumter	1849	

NAME.	POST OFFICE.	COUNTY.	ADMITTED.	DIED.
Grimes, T. W	Columbus	Muscogee	1855	1882
Habersham, J. C	Savannah	Chatham	1853	
Habersham, J. C., Jr. (V-P.)	Savannah	Chatham	1866	1881
Habersham, S. E	Eatonton	Putnam	1870	
Harrell, W. J	Bainbridge	Decatur	1874	1881
Harris, S. N. (V-P.)	Savannah	Chatham	1851	1854
Harrison, Gabriel	Macon	Bibb	1862	
Harriss, Juriah (O., V-P.)	Savannah	Chatham	1852	1876
Hart, A. C	Waynesboro	Burke	1852	
Hawes, E. C	Appling	Columbia	1852	
Heard, T. O	Griffin	Spalding	1867	
Hendrick, J. B	Covington	Newton	1857	1881
Henry, G. C	West Point	Troup	1872	
Hook, E. B	Augusta	Richmond	1857	1862
Hoxey, Thomas	Columbus	Muscogee	1849	1853
Ingraham, E. P	Albany	Dougherty	1870	1873
Irvine, Robert	Augusta	Richmond	1880	1881
Johnson, C. W	Macon	Bibb	1870	1875
Jones, B. O	Atlanta	Fulton		
Jones, J. W	Atlanta	Fulton	1857	1871
Kirkscey, E. J. (V-P)	Columbus	Muscogee	1871	1877
Kollock, P. M. (P.)	Savannah	Chatham	1852	1872
Lamar, T. R. (V-P.)	Macon	Bibb	1849	1859
Lightfoot, W. S	Macon	Bibb	1849	1864
Lockhart, R. H	Columbus	Muscogee	1855	1859
Long, Crawford W	Athens	Clarke	1849	1878
Lumpkin, George	Maxey's Depot	Oglethorpe	1859	
Lumpkin, S. P	Watkinsville	Clarke	1859	
Mackie, J. D	Augusta	Richmond	1852	1854
Maffit, R. G. W	Dalton	Whitfield	1859	
McBride, W. G	Oconee	Washington	1850	1873
McGoldrick, R	Macon	Bibb	1849	1853
McKinley, C. A	Newnan	Coweta	1859	
Means, O. S	Oxford	Newton	1857	
Meiere, William S	Madison	Morgan	1857	
Morrison, D. H	Savannah	Chatham	1868	1869

NAME.	POST OFFICE.	COUNTY.	ADMITTED.	DIED.
Musgrove, W. C. (C-S.)	Midville	Burke	1849	1876
Nash, R. A.	Marion	Twiggs	1849	
Nisbet, R. H.	Eatonton	Putnam	1854	1873
Nottingham, C. B. (S. T. C. P)	Macon	Bibb	1849	1876
Nunn, R. M.	Savannah	Chatham	1871	1873
Ogilby, H. J. (V-P.)	Madison	Morgan	1849	1873
O'Keeffe, D. C. (S.)	Atlanta	Fulton	1852	1871
Orme, L. H. (S.)	Atlanta	Fulton	1866	1872
O'Sullivan, ——	Cork	Lee	1849	
Owen, J. D.		Baldwin	1850	
Parsons, J. M.	Russellville	Monroe	1849	
Pitts, G. W.	Starr	Butts	1859	
Posey, J. F.	Savannah	Chatham	1851	
Pringle, W.	Covington	Newton		
Ragan, Isham H.	Palmyra	Lee	1856	
Rauschenberg, Christian	Atlanta	Fulton	1861	1878
Richardsone, C. P.	Savannah	Chatham	1851	1853
Ridley, R. A. T. (V-P.)	LaGrange	Troup	1859	1871
Robertson, J. J.	Washington	Wilkes	1852	1872
Roddy, R. L. (V-P.)	Forsyth	Monroe	1849	1878
Ruffin, W. R.	Augusta	Richmond	1852	
Russell, W J.	Lawrenceville	Gwinnett	1861	
Ryan, T. D. L.	Hawkinsville	Pulaski	1859	1876
Saffold, S. J.	Madison	Morgan	1856	1859
Shropshire, J. W.			1871	
Simmons, J. N.	Atlanta	Fulton	1850	1871
Simmons, J. S.	Gainesville	Hall	1873	1881
Simmons, S. B.	Augusta	Richmond	1852	1867
Simmons, T. A.	Irwinton	Wilkinson	1871	1872
Smith, A. D.	Montezuma	Macon	1871	
Smith, C. W.	Jonesboro	Clayton	1859	
Smith, R. M. (C.)	Athens	Clarke		1879
Smith, Thomas	Savannah	Chatham	1858	1876
Spier, W. A.	Grantville	Coweta	1859	
Stallings, J. D.	Preston	Webster	1871	
Starr, E. P.	Savannah	Chatham	1868	1873

NAME.	POST OFFICE.	COUNTY.	ADMITTED.	DIED.
Steele, H.	Knoxville	Crawford	1849	
Steele, R. T.	Fairburn	Campbell	1849	
Stephens, W. B.	Forsyth	Monroe	1849	
Stewardson, Thomas	Savannah	Chatham	1849	
Strozier, L. L.	Albany	Dougherty	1867	
Sutton, C. B.		Lee	1856	
Taylor, E. T.	Columbus	Muscogee	1855	
Taylor, R. N.	Hawkinsville	Pulaski	1850	
Thompson, Charles	Macon	Bibb	1849	1854
Trammell, A. A.	Forsyth	Monroe	1856	
Underwood, J. B.	Cave Spring	Floyd	1860	1881
Van Meter, I. N	Euharlee	Bartow	1879	1881
Wall, W. W	Calhoun	Gordon	1860	
Ware, A. E. O.			1859	
Wells, C. H.	Savannah	Chatham	1853	1854
West, Charles (P.)	Perry	Houston	1849	
West, C. W.	Savannah	Chatham	1853	1859
White, S. G. (V-P.)	Milledgeville	Baldwin	1868	1877
Whitlock, Isaac W.	Washington	Wilkes	1852	1853
Wiley, J. B.	Macon	Bibb	1849	
Williams, T. L.		Dooly	1849	
Williams, W. L.	Fayetteville	Fayette	1873	1878
Willingham, Willis	Lexington	Oglethorpe	1849	1872
Winn, G. A.	Bolingbroke	Monroe	1849	
Woodson, C. T.	Wilna	Houston	1854	
Wooten, W. H.	Lexington	Oglethorpe	1852	1860
Wragg, J. A.	Savannah	Chatham	1853	
Yonge, Easton	Savannah	Chatham		1880

2 GAL 318

2 GAL 318